FOGHORN

THE MONTHLY CP/M PUBLICATION OF **FOG**

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FOG has been formed as a users' group for all persons who use or are interested in portable computers. Membership is available to any interested party whether or not they currently own a computer. The ***FOGHORN*** is published monthly by **FOG** for its members. A subscription providing bulk mail delivery to an address in the U.S. is included with membership in **FOG** for $24.00 per year. See chart below for the additional postage required for other locations. Address all inquiries to **FOG**, P. O. Box 3474, Daly City, CA, 94015-0474. The voice phone is (415) 755-2000.

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FROM THE FOG

It's Election Time Again!

by Frank Morton

Sitting here at the keyboard on a December night it is difficult to think of Valentine's Day when we have not yet celebrated Christmas or New Year's Eve. However, by the time you read this it will be time to send and receive cards and gifts to those you care for. You also should receive an official FOG Ballot for our annual elections. Ballots were sent by First Class mail to all registered FOG members.

Instructions on how to vote properly have been included in an article by Melissa Gray in last month's ***FOGHORN*** as well as in this issue. Melissa is our official vote counter. She has written an elaborate and efficient dBASE program to tally all of the votes and proxies. Her instructions will help ensure that you do not invalidate your vote through some error in preparation.

As I indicated last year, FOG is not only a non-profit, public benefit, tax deductible corporation, but also a democratic one as well. Each and every member has an equal single vote.

FOG is run by a Board of 10 Trustees who choose one of their number to be Chairman of the Board (and President). The Chairman is not permitted to vote on motions before the Board except in the case of breaking a tied vote.

The entire Board is elected by, and is answerable to you the general membership. Although your suggestions and feedback are desired and welcome at any time, this annual election is your one real opportunity to exercise your control over FOG. Therefore it is important for both you and FOG that you read each of the candidate's statements carefully, then make your decision and return your selection for the Board.

FOG NEEDS YOUR VOTE!

If you are a new member you may wonder why the Ballot says to vote for no more than five (5) of the candidates, when the Board has 10 members. An amendment to the By-Laws was ratified by the membership last year. This amendment caused the top five candidates in last year's election to be elected to a two-year term on the Board. Beginning this year, we will be voting each year to fill the existing Board vacancies. The chosen nominees will be elected for two-year terms also. This way we will have an overlap that ensures that half of the Board consists of experienced members.

In the past, the General Meeting (the By-Laws requires that one such meeting occurs each year) has been held sometime during the West Coast Computer Faire. It was so chosen with the hopes of maximizing the attendance at our FOG meeting, since many persons come into the area for the Faire. In the past we have also invited a noted guest speaker to address the General Meeting.

For several reasons, this has not worked out as anticipated. The attendance has not been significantly large and we have paid rent on a bigger meeting place than was required. Frankly, the turnout has not been very impressive for the quality of speakers who have addressed us. It may be that the various activities at the Faire were more attractive than our business meeting.

In any event, the General Meeting will not be held this year in conjunction with the West Coast Computer Faire, which is in April. Instead it will be held in March at a hall near the FOG office. Check your March ***FOGHORN*** for the latest information on the exact time and location.

The sample article by Melissa Gray which went out to AMO officers in early December included a tentative date for the election. Regrettably, the actual date negotiated for the hall is different, and this is noted in the Ballot and in Melissa's ***FOGHORN*** articles. The information noted on the Ballots should be correct, barring any unforeseen circumstances. If you are planning to attend the meeting, check the March ***FOGHORN*** for any possible last minute changes in schedule.

On another subject, you probably have noticed the appearance of a new category of FOG diskettes in the Library, with accompanying descriptions in the ***FOGHORN***. They have the names **FOG/CPM.xxx**, where **xxx** represents sequential numbers. On the FOG Bulletin Boards they exist as files **CPM#xxx.LBR**.

While these Library diskettes are part of a general reorganization, as described in the October 1985 ***FOGHORN***, they contain a lot of new programs which were not previously available. A number of these programs include source code for TURBO Pascal and C. So if you have not checked them out yet you might want to do so. I think you will find it worthwhile.

Once again please DON'T FORGET TO VOTE! FOG needs your participation.

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Space reservation is made by payment for space and must be done at least two months prior to desired cover month. Art work must be received at the **FOG** office at least one month prior to desired cover month. For further information, call (415) 755-2000.

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How to Vote

by Melissa Gray

As you now will have received the 1986 FOG General Election material, I'd like to cover again the rules for balloting. This should help you, FOG and me: it will ease my task as Inspector of Elections and, thus, reduce the cost to FOG, and will give you the information to insure that your ballot counts.

The main problem that occurred in previous elections was the confusion over choosing between casting your own votes (ballot) or designating someone else to cast all or part of your votes (proxy).

You may choose ONLY one — ballot OR proxy. Included in the election material is one sheet, divided by perforation marks, that includes both the proxy and the ballot forms. After reading through the candidates' statements, separate either the ballot form OR the proxy form from the perforated sheet and complete it as directed on the form.

If you choose to vote your own ballot (as opposed to designating a proxy), simply place a check by each candidate you are voting FOR (you may vote for fewer than five but voting for more than five will invalidate your ballot).

Place ONLY the Ballot portion of the sheet in your OFFICIAL envelope. This envelope authenticates your ballot. Nothing other than your vote selections should be written on the Ballot form.

The purpose of designating a proxy is solely to complete your ballot in the General Election. Your proxy designate has no other power. Therefore, if you know exactly which candidates you wish to vote for you should choose to vote your own ballot. However, if you are unsure about how you want to vote AND you want to give your power to vote to another member of FOG, you should choose to designate a proxy.

If you choose to designate a proxy to vote all or part of your ballot, you MUST designate a current member of FOG as your proxy. You might choose one of the candidates, a current member of the board, a member of the office staff, or one of your local FOG Group officers.

You MUST specify your proxy by legible NAME — not title — in the space provided on the Proxy form or your proxy will be invalid. You MAY indicate any candidates for whom you require your proxy designate to vote or not to vote. You will invalidate your proxy if you specify more than five candidates to vote for. Circle the name(s) of candidates your proxy designate must vote for and cross out the name(s) of the candidates your proxy designate may NOT vote for. Do not underline your candidate(s) of choice as that might be confused with crossing out.

To complete the validation process of your Proxy, you MUST print and sign your name and fill in your FOG membership number and the date. Place ONLY the Proxy portion of the sheet in your OFFICIAL envelope. This envelope authenticates your proxy. Nothing other than your proxy designate's name, any (optional) vote selections/de-selections, and your identification, signature and date should be written on the Proxy form.

Do not include address changes or renewals with your ballot or proxy as the official election envelope goes to an independent vote-tallying service and not to FOG. Do not save the election envelope for use after the election as the address on the envelope is only valid during the period of the election.

You may mail the official election envelope (to be received by March 20, 1986) OR deliver it at the General Meeting (March 22, 1986). Any other method of delivery invalidates your ballot. The official results of the election will be available March 23, 1986. Any election material received after March 22 will be discarded.

If you submit a Proxy, either to your proxy designate or to the Inspector of Elections, you may rescind that proxy by contacting the person holding it prior to March 22. To rescind a proxy held by the Inspector of Elections, you must send a signed letter (signature must match proxy held) including your Membership Number specifying that you request your previous proxy to be rescinded and replaced by another FOG member as proxy (whose name is clearly indicated in the letter) OR by the enclosed Ballot form from your election material, filled in properly.

To contact the Inspector of Elections, write to:

Melissa Gray
2215-R Market St.
San Francisco, CA 94114

If, after reading these instructions and those in the Election Material, you still do not understand how to complete your ballot or proxy you may contact Melissa Gray at (415) 861-2570. Please do not abuse the phone privilege.

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LETTERS

My Executive Has Chicken Pox

The Executive that I am using has chicken pox and I'd like to know if there is anyone out there who can provide a fix.

The condition began about a month after I began using the machine. At first it was only intermittent but has now become chronic.

Under ordinary circumstances I would take it in to be serviced, but the nearest Osborne service is 200 miles away and since the logical functions don't seem to be impaired, I'm asking for suggestions from FOG members.

The dysfunction has the following characteristics. First of all when I turn the computer on, it flashes the message "Computer not operating properly etc". If I hit reset, I can boot a disk anyway.

All my software seems to run properly but the monitor is filled with a varying number of reverse accent marks, mostly clustered in straight lines at the bottom of the screen. Sometimes there is only one, but usually there are several dozen of them. They disappear when text is typed over them using WordStar, and they never print.

While using SuperCalc, the command line usually contains one or more of these pox marks and when I overtype it, the character shown on the monitor appears differently than the one typed, e.g., 1=q, 2=r, 3=s, 4=t, 5=u, 6=v, 7=w, 8=x, 9=y, 0=p. Strangely the numerals yield the alphabetical order from **q** through **y**. However, SuperCalc computes on the basis of the actual number entered.

So the problem seems isolated to monitor function. But it is becoming more and more bothersome and I'd certainly like to be able to correct it. Though I have had the case off of the Executive on a couple of occasions, I'm certainly no electrical engineer. But given some indication as to what might be wrong I could probably replace a transistor or fix a connection.

If it's beyond me personally, I have friends in the area who could give me a hand. In any case I would like to avoid having to take the machine to a service center and suffer the considerable downtime that it would entail.

Hoping someone else out there can help me.

D. Fir
Box 700
Garberville, CA 95440

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Help Needed with Some Circuit Alterations

I wish to expand my 80 column, DD Osborne 1 by externally adding two further drives. I have acquired two extra Siemens drives which are identical to the two in my machine. I can modify the ribbon cable and sockets to accommodate the extra drives but where I come unstuck is I don't know what circuit alterations have to be made to the motherboard, and/or the disk drive boards to enable the extra two drives to be C and D respectively. I guess that the terminating resistors will need to be moved as well.

I feel sure that someone out there has already done this. Do write to ***FOGHORN*** and let us know how you did it. If possible I would appreciate an air mail reply direct as well.

Yours in Osborne.

Steve Porter
Central Region Osborne Group (AMO 109)
9 Brown St.
Upper Hutt, 6401
New Zealand

[OS1 will only easily address three drives due to hardware implementations, and a larger power supply is needed, as well. The best bet is to contact Nuevo Electronics for their upgrade. Some major software rewrites are in order otherwise. Ed]

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Some Vexing Problems with the Vixen

I have had an Osborne 1 for two years, and recently acquired a Vixen. I love it. However, there are three problems that I have been having that I would like to share and perhaps gain advice.

When I use the ^F.COM program on MagicDIR from CompuMagic, I find that it will not work when I boot MBASIC.COM. This works on the O-1, but something different is happening in the internal workings of the Vixen which causes the machine to reboot and expel ^F.COM from the CPU.

Secondly the MOVCPM.COM that came with the Vixen will not let me MOVCPM to form a 62K CP/M environment. I need to do this in order to run an MBASIC program that is very large.

Finally, I purchased a LEGEND 880 dot matrix printer, which is supposed to be a clone of the Epson MX-80 that I used to have. When I send OSBOARD printouts to the printer the graphics come out correctly but the written characters are totally in the wrong position.

Any advice on my problems would be greatly appreciated, as is the great job that FOG continues to do.

Gregory L. Smith
Nurnberg, West Germany

[Re: your second point, the Vixen won't let you do this and neither will the O-1. The top 4K is used for screen memory mapping and CP/M has its own overhead requirements. The CP/M system size of the Vixen (and the O-1) is 59K — maximum. Jack]

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FOG, *FOGHORN*, and *FOG+*

I live in an area geographically removed from knowledgeable users' groups, where there probably are no other Osborne 1 hobbyists remaining. Hence the ***FOGHORN*** and ***Portable Companion*** (if it is still alive) are of considerable interest.

The BAYAREA of HOUSTON, TEXAS (150 AT&T mile tolls away) at (713) 488-5619 has maintained an excellent Osborne (Public Domain) software collection, that has also been of great help.

The ***FOG+*** publication can be of considerable assistance, IF it endeavors to provide transition, transmission, and trajection from the Osborne 1 to the 16/32-bit environments, and does not become just another It's Better Manually monthly rehash of what is better covered by those dedicated to IT.

My Osborne is used at home for personal business and some law office work, other than word processing (that's for secretaries and dedicated WPers capable of doing it right). Hacking around with various public domain utilities, programming dBASE II applications, and SC2 spreadsheets have provided many benefits and RCP/Ming many hours of challenge and fascination.

The prospect of being limited to the canned runs and menus, as it all seems to be going, in order to become "user friendly" or "mousey", is not — to say the least — appealing.

This is written on a Selectric because my Okidata 82A has flipped a couple of print head pins, and a new printhead at $100 from Oki has me vacillating between that or adding a few dollars and getting a new printer whose replacement heads are reasonable.

Everett R. Scott
Lake Charles, LA

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More on Creating a Reference List with WordStar

John Becker's article in the September, 1985 ***FOGHORN*** (p. 30) on *Creating a Reference List with WordStar* was on target. I have been using the same system except that instead of creating another file and reading those references that were saved incrementally by ^KW (control KW) commands after blocking, I create a merge file while still inside my main file. That is, I create a file (actually a paragraph) that looks like:

.FI BIBBRO
.FI BIBJON
.FI BIBSMI

etc., and then block (^KB and ^KK) and save as **BIBMSTR**. Then at the end of my article I insert a file insert command:

.FI BIBMSTR

which completes the files. Not much different from John's system but it slightly more streamlined as far as creating the bibliography. John is right about saving the $150 of which I spent $49 for the Random House proofing dictionary. (Also better than SpellStar in my view.)

This article was written on an Epson HX-20 and then PIPed with PIP.COM to my Osborne Executive with the syntax:

B:FILENAME=AUX:[E]

and then printed from disk in WordStar after deleting carriage returns with ENSOFT.COM — FOG/CPM.010.

Nick Steffanoff
Portland, OR

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Setting 12 cpi as the Default

In answer to James T. McCollum's question, ***FOGHORN***, Vol. IV, No. 12, about getting 12 cpi to come up as default and 10 cpi as the alternate type font, the answer is very simple.

I have set up a test WS.COM (thank God we in the CP/M 80 world don't have to live with two copies of a program and then be done with it forever) with these alterations and it works as advertised.

Using the INSTALL program for this particular version of WordStar, Mr. McCollum must patch PSTD (06BA) to 03 1B 4E 02 (12 cpi) and PALT (06B5) to 03 1B 42 01 (10 cpi). This will take care of the switching requirements once inside the document. To handle the initial setting to his requirement of 12 cpi he will have to set PSINIT (06E7) to (at a minimum) 03 1B 42 02. This will send the printer initialize string with the required 12 cpi to the Gemini just in front of each document to print.

Mr. McCollum will note that I started each of my strings at a slightly different location than he. I believe that he may have been leaving off the most important part of the character string; the number of characters to follow. I also recommend that he use the label instead of a location and he will not go wrong.

I would recommend the addition of the following codes to the PSINIT string.

08	number of characters to follow
1B	
40	printer software reset
1B	
4F	resets skip-over perforation to zero line
0D	returns print head to col. 1 prior to first print
1B	
42	
02	causes 12 cpi

To answer the question about location 037C, I believe that location is usually used for daisy wheel type printers and not electronic-controlled dot matrix style printers.

Note: I am writing this on my old and trusted Lobo MAX-80 at home and I use Radio Shack Model 4P for my (TRANS)portable. This way I have total compatibility with both of my machines and all my friends' 0-1s and Execs.

In ending, LONG LIVE CP/M 80.

Randolph D. Lee
Korea

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Silence From the Kaypro Field Prompts Action

That Kaypro guy seems to be the lazy one in the midst of the alert ***FOGHORN*** gang . . . always on vacation. So as a Kayproist (and a devoted Osbornist, too) maybe I can help out. Here is a contribution for Kaypros (and perhaps the Executive, too) on some function key definitions for WordStar (see **SYSTEM NOTES**).

A Few Other Points

Thank you for publishing my letter to SmartKey (August 1985 ***FOGHORN*** p. 7). Meanwhile Mr. Griffin answered one of my letters — apologizing and including a new address (I had known their new address and used it) and telling me they prefer to do business. But my next customer's letter remains unanswered again, and SmartKey is still a very hard-to-get program in Finland.

With some (just some) experience with American software houses, I have found the policy of Software Research Technologies exceptionally egoistic. Usually software houses have been friendly and helpful, even with us overseas customers. Best of all have been my experiences with Microsphere and Micro Cornucopia up in Oregon.

Does anyone have a poem generator? If so, please write in the ***FOGHORN*** about your way to randomize verses; to push power into the pipes of consciousness and metaphorical reiterations.

Thanks FogFolks! The ambience of your (our) paper reminds me of the ingenious nonprofit attitude and Weltanschaung in the Old Citroen Buggy Clubs we have here in Europe.

Arto Kytohonka
Finland

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Crystal Clear Writing for the Amateur

The ***FOGHORN*** has been very useful to me since the first issue I received. One article in the July, 1985 ***FOGHORN***, however, is so useful that the writer, John Wyatt, should receive special recognition. The article is entitled *Patching WordStar to Lightning Boot.*

It is not much the subject of his article — we have all seen other WS boot-patch articles — but how it is written. It should be a model for ***FOGHORN*** articles.

The reason is that it is written at my level, and I am a gross amateur. The ***FOGHORN*** is an encyclopedia for how-to-do information. Far too many of its articles, however, assume that the reader has a certain level of basic computer knowledge. Since beginners as well as experts can benefit from the articles, they should be written so that beginners can use them. An expert can simply skip over what her or she knows, and do the fix or patch, or whatever, faster. A beginner, however, needs to know every single step and what it does.

I have seen several articles that I would dearly like to use, but I just do not know how to implement. For example, I know nothing about assembly or assembly language, so those articles are out of my reach.

By comparison, John Wyatt's article not only shows and explains each step, but also even tells you which CP/M disk to use! It also tells what drive to put it in, what the bold print and return symbol mean, and what you will see on the screen. Then, it gives little explanatory statements as it goes through the steps. That level of detail is even more than I need, but many others do need it. It is far better to spend the extra six seconds to read a few superfluous sentences than risk the downside of too little detail and lose the opportunity to use the information altogether.

Anyway, I read John Wyatt's article, implemented it and cut several more seconds off an already-patched WS 3.3.

Mr Wyatt modestly notes that everything in his article was from past issues. I will add, however, that he is the person who gathered it all, compiled it in crystal clear English (not computerese) and made it useable for the likes of myself.

Thanks for publishing it.

V. Michael Straus
Washington, D.C.

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ADVERTISEMENT

Write-Hand Man

"Almost a Sidekick for CP/M"
Ted Silveira—Computer Currents, Aug. 27, 1985.

"WHM is ingenious and works as intended"
Jerry Pournelle, BYTE Magazine, Sept. 1985 (c) McGraw-Hill

Now available for CP/M 2.2, CP/M 3.0 and ZRDOS!

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Write-Hand-Man only works with CP/M 2.2, ZRDOS and CP/M 3.0 (please specify). Simple terminal configuration required. Not available for TurboDOS. Compatible with keyboard extenders, hard disks, and other accessories.

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Trademarks: Write-Hand-Man — Poor Person Software, CP/M—Digital Research, *Sidekick*—Borland International

In Praise of Nuevo

I support your decision to add MS-DOS support in the form of a separate magazine while maintaining full support for Osborne and CP/M. As soon as I find a job (or one finds me), I'll subscribe and order any back issues I may have missed.

Like many others I also work on an IBM-PC and would certainly appreciate a vast wealth of information for that such as you have provided for the Osborne. It's a rare month when I don't find something really useful in the ***FOGHORN***.

This brings up the subject of Nuevo Electronics. I've been using their 2x2 (DS/DD, 48 tpi) upgrade for about a year now and was, I'm told, one of the very first to receive it.

The first edition I received had an intermittent glitch involving disk copies and formatting. Al Jan, one of the most helpful and concerned persons I've had the pleasure of dealing with, was finally able to duplicate the problem on one of his machines and trace it to the drives supplied.

They then changed to the current half height drives (and modified front panel), with which I've had absolutely no problem. The system functions so flawlessly (especially compared to the problems I had with the original Osborne drives and system) that I recommend Nuevo's products without hesitation or reservation, whether I've personally used them or not.

That is the highest recommendation I can give. They are dedicated to producing products that function perfectly and as advertised.

Their 2x2 upgrade will format and digest just about any reasonable quality disk I throw at it — SS/SD, SS/DD, DS/DD. My preconversion collection of disks consisted of all types — bulk disks — and some unknown to me. When I converted to double sides, all but four or five formatted perfectly. It is far less picky than our IBM-PC. That one feature alone saved me a bundle of money.

Last week I received Nuevo's latest System Generation and Utility Program disk — without charge — demonstrating Nuevo's continued concern for their customers. There were some improvements and revisions made although they are invisible in normal usage. Besides their excellent ULTIMAT program (similar to Media Master), they have added a separate IBM.COM program which formats and copies IBM DOS 1.x and 2.x single and double sided disks to and from the Nuevo upgrade Osborne.

Even though I have Media Master, ver. 1.08, for the IBM, which will format and copy Osborne Vixen/Nuevo 2x2 disks, I prefer to do it on the Osborne. This makes IBM.COM, which is also faster than Media Master, a very useful program to me.

I've been enjoying the benefits of 386K per drive for the past year; a true blessing. I've never regretted upgrading. Although I could have doubled that capacity with Nuevo's 4x4, that would have limited my ability to write disks that other Osbornes, IBMs, etc., could reliably read.

However, if that additional capacity should become important to me, Nuevo offers a third drive for the Osborne, internal or external, that can be 782K.

Considering Nuevo's continued Osborne support, now including some super upgrades for the Executive, and their continuing concern for both quality and their customers, I'm quite happy that FOG continues to print good and well deserved reports of their products.

Cleve P. Garvin
Overland Park, KS

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SFK Protection From the Accidental Overwrite

In the September, 1985 ***FOGHORN***, there is an article by Mike Gossett about using SuperCalc SFK's. In my particular circumstances, where I am interrupted every few seconds, programming data file names into the special function keys would be a disaster — I'd hit a wrong key and overwrite a different file, thus losing the overwritten one.

A safer and faster method in my case is to program a special function key **/S<ESC>** ↵ **0 A**, where ↵ means carriage return and <ESC> saves the file to the same name that it was loaded under. One keystroke saves the file by calling up the filename, and then answers **0** to overwrite and **A** for all. This is for SuperCalc2 only (which supports the <ESC> function). The spaces before the **0** and the **A** give the program time to respond. When interrupted while updating SuperCalc2 data files, I simply hit **^1** (control 1) and never get in trouble.

On another note, I'm thrilled to death with my latest Nuevo Electronics update. What a joy to Edit, sort and PRoduce Pearl files without the disk changes!

Henry B. Williams
Lugoff, SC

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Cooling the Ozzie

Before I buy a cooling fan attachment for my Ozzie, I would like to read a hardware review or two in the ***FOGHORN***.

Questions: Which manufacturer did you buy from and how fast did they ship? Is the fan quiet, easy to install and remove? Is R & D's Oscool at $68.50 better than Torocomp's fan at $49?

The fans as pictured in the ads seem to be exhaust fans, which means they draw dust-laden air into the computer.

A better design would feature a snap-on washable air filter and would blow air INTO the computer. Exhaust would be via the Ozzie's various vents and seams. That way dust is filtered out of the cooling air before it enters the computer. Also, the positive air pressure created inside the computer by the fan prevents dust infiltration elsewhere through vents and seams.

I would much prefer to have scuz accumulate on a washable filter than on the insides of my Ozzie!

Barney C. Black
Virginia Beach, VA

*[There are reviews of the Oscool fan in the September, 1984 issue of the **FOGHORN**, p. 32, in the October, 1984 issue on pp. 44 and a review of another fan in the same October issue on p. 55. Many users have also commented on fans in past issues of the **FOGHORN**. Ed]*

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ADVERTISEMENT ADVERTISEMENT

IS SOMETHING ROTTEN IN FOG?

FOG's strength has been its network of volunteers willing to put aside status and personal financial gain to educate and help one another. Now there is an orchestrated effort to inject professional backroom politics into FOG's elections. All of us, as FOG members, must use our votes to put a stop to this.

The March, 1986 election is the most important in FOG's short history.
FOG's survival may depend on your participation.

Read the candidate statements. Five begin with an endorsement from Frank Morton; four end by requesting either your vote for the other four candidates or the assignment of your proxy to Frank Morton. Frank Morton is not a candidate in this election...why is he trying to control it?

Five incumbent Trustees are candidates; Frank endorses only three. How have the other two incurred his disfavor? One is the Chairman of the Long Range Planning Committee, a volunteer worker in the FOG office, a FOG SysOp, an officer of his local group, and a contributor to the Disk Library and both FOG publications. The other has written many articles and reviews for the FOGHORN and the new 16/32 bit publication and is the only current Board Member of this international organization who does not live in the United States.

Is Frank seeking to establish a Board which would rubber stamp his proposals? Some of us have worked with Frank Morton, some of us have never met him. All of us are concerned about what he is trying to do. FOG's Board of Trustees must represent the diverse interests of the entire membership.

If FOG is to survive, one person cannot be allowed to dictate the outcome of our elections.

Take a few minutes, pull out your election packet, and READ ALL of the candidates' statements. Then join us in voting for those candidates you believe will best serve all FOG members. We MUST NOT permit our organization to be destroyed by our complacency.

Vote, either directly or by proxy but VOTE!

This ad was paid for by concerned FOG members.
Due to space limitations, the names of all FOG members who are supporting this ad could not be included.

Gale Rhoades (FOG Executive Director, former Board Member, and SysOp)
Jack Brown (FOG Technical Support Manager, former Board Member, and SysOp)
Lloyd Rhoades (FOG employee, former full time volunteer)
Ron Forsythe (Incumbent candidate, SysOp, Chairman Long Range Planning, AMO Treasurer)
Alan Chattaway (Incumbent candidate, WordStar expert, FOGHORN contributor)
Roy Robinson (Candidate, SysOp, FOG RCP/M technical advisor)
George Peace (Candidate, CP/M+ expert, SysOp, FOGHORN contributor)
Ernest Dryden (Candidate, AMO President, SysOp, Disk Library contributor)
Irving Sacks (Candidate, Technical Support volunteer)
Roderick Lane (Candidate, volunteer)
K.C. Jones (Candidate)
Roger Doherty (Candidate, former AMO Treasurer)
Fran Weber (Former FOG Chief Financial Officer, former Board Member)
Jim Switz (FOG Board incumbent, FOGHORN contributor, SysOp)
Dick Ezzard (WordStar expert, FOGHORN contributor, SysOp)
Bond Shands (SysOp, AMO officer, FOGHORN contributor)
Mark Sevi (SysOp, dBASE expert, FOGHORN contributor)
Kenji Nakadegawa (SysOp)
Troy Soult (SysOp, FOGHORN contributor)
Peter Heckmann (AMO President, SysOp)

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Pittsburgh, PA

cc: Eric Meyer, Pro/Tem

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Comments on Names, Nuevo, Print Buffers and the Vixen

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3. Print Buffers (specifically Mike Gosett's article on QUADRAM Microfazer). If you have a good deal of printed output, a buffer is a must. I also have a Microfazer (bought before my 384K Drive C which also has print buffer capacity), and have upgraded it to 128K specifically for one extremely large dBASE II report. While Mike's article showed the savings in time to print WordStar files, those statistics actually do a disservice to print buffers. WordStar is tremendously slow in outputting its text to the printer (or print buffer). The real savings in time come from programs with speedy output. A full page SuperCalc spreadsheet (8-1/2" x 11") dumps its output into the buffer in about five seconds (even though it takes almost a minute to print at 160 cps). dBASE sends a line at a time to the printer, then waits for the printer to tell the program it is ready for another line. If you're printing an indexed file, the program apparently waits for the "printer-ready" signal before accessing the next record. Using a large file with random records being put in order with an index, a buffer (which is almost always "printer-ready" to the computer) speeds things up to an amazing extent.

4. Vixen BDOS Errors. I have an early Vixen (Ser # 1086 ROM V1.01) which has recently been showing an inability to access disks on the Drive B (BDOS Bad Sector). The disks themselves have no bad sectors (they boot and run perfectly on A). I have heard rumors of a ROM upgrade which fixes this problem, but apparently no-one has seen the rumored chip. Repeated calls to WestWind (dealer from whom Vixen was purchased) asking for instructions as to whether to return Vixen to them (3000 miles) or to have my newly-appointed local Osborne dealer fix it under warranty, which has been unsuccessful ("We'll get back to you"). Finally J & D Associates (the local Osborne dealer in Elizabeth, New Jersey) offered to replace the ROM with the new version 1.04 under warranty. John Arceleo called Osborne, got the ROM, replaced it, and the Vixen now is working perfectly. Thanks to John and J & D Assoc. for their assistance.

Kurt M. Gebauer
Hope, NJ

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Can the O-1's BIOS Be Modified to Read IBM PC/MS-DOS Format?

The October, 1985 ***FOGHORN*** contained a very interesting article by W. M. Steele concerning how to modify the Osborne 1's BIOS to permit a DD machine to read Osmosis DD format diskettes (*You Can Read Osmosis DD Disks Using the Osborne DD Board!*, p. 54). *[PCPIP on FOG/UTL.040 and PCPIP2 on FOG/UTL.043 will allow you to read and write single sided MS-DOS disks.]*

Insofar as the standard "factory-installed" DD system can read IBM CP/M-86 format diskettes, it seems probable that a modification similar to Steele's should be available to make DD Osborne 1's read IBM PC-DOS/MS-DOS format diskettes.

Has anyone worked out the sector translation tables and disk parameter blocks necessary to do this?

If so, an article similar to Steele's describing how to make the necessary BIOS modifications would be very useful.

Thanks generally for a publication that regularly gives me useful information.

Richard Gruner
Los Angeles, CA

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Avoiding Misinterpretation of $ Characters in .SUB Files

Byron McKay's exercise in patching MAC-80 (***FOGHORN*** June, 1985) to avoid misinterpretation of **$** characters in .SUB files, was heroic but unnecessary.

If you want to include a literal **$** in a .SUB file, all you have to do is put **$$** in the .SUB file. SUBMIT.COM will read this as a single literal **$** and will not attempt to substitute data from the SUBMIT command tail. For example, a typical MAC command from the keyboard:

MAC MYFILE $PZSZ

would be written in a .SUB file as:

MAC MYFILE $$PZSZ

This feature of SUBMIT.COM was used, without comment, in a ***FOGHORN*** article on the use of RMAC with C/80 (December, 1984 or January, 1985.)

John Allen

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1. "A Rose By Any Other Name . . ." I strongly support the Board decision to retain the Corporate name "First Osborne Group", but to concentrate on the FOG trademark. We (FOG members) now have the best of both worlds — we do not forsake our origins, we do not incur the expense of a Corporate name change — yet we broaden our appeal (and how many members really refer to FOG by its "official" name anyway).

2. Nuevo 80-column and DSDD upgrades. The DSDD upgrade is fantastic. I bought it to allow data disks to be compatible with my new Vixen, but think it is a worthwhile upgrade for any O-1 owner. What double density did for single density, double side does for double density. The 80 column upgrade has several advantages over the Osborne Screen-Pac (bigger letters in display, selectable cursor), BUT the standard Nuevo 80 cuts off the display at 79-1/2 columns on Amdek 300A and (from William TeBrake's July letter) Zenith ZVM-122 monitors. The good news is that Nuevo is aware of the problem, and have a fix for the it, which was sent at no charge (after a phone call to explain the problem). I now read the full 80 columns on my Amdek (but I would suggest that anyone ordering the Nuevo 80 column upgrade specify monitor type so that Nuevo can send you the correctly-working upgrade for your monitor).

3. Print Buffers (specifically Mike Gosett's article on QUADRAM Microfazer). If you have a good deal of printed output, a buffer is a must. I also have a Microfazer (bought before my 384K Drive C which also has print buffer capacity), and have upgraded it to 128K specifically for one extremely large dBASE II report. While Mike's article showed the savings in time to print WordStar files, those statistics actually do a disservice to print buffers. WordStar is tremendously slow in outputting its text to the printer (or print buffer). The real savings in time come from programs with speedy output. A full page SuperCalc spreadsheet (8-1/2" x 11") dumps its output into the buffer in about five seconds (even though it takes almost a minute to print at 160 cps). dBASE sends a line at a time to the printer, then waits for the printer to tell the program it is ready for another line. If you're printing an indexed file, the program apparently waits for the "printer-ready" signal before accessing the next record. Using a large file with random records being put in order with an index, a buffer (which is almost always "printer-ready" to the computer) speeds things up to an amazing extent.

4. Vixen BDOS Errors. I have an early Vixen (Ser # 1086 ROM V1.01) which has recently been showing an inability to access disks on the Drive B (BDOS Bad Sector). The disks themselves have no bad sectors (they boot and run perfectly on A). I have heard rumors of a ROM upgrade which fixes this problem, but apparently no-one has seen the rumored chip. Repeated calls to WestWind (dealer from whom Vixen was purchased) asking for instructions as to whether to return Vixen to them (3000 miles) or to have my newly-appointed local Osborne dealer fix it under warranty, which has been unsuccessful ("We'll get back to you"). Finally J & D Associates (the local Osborne dealer in Elizabeth, New Jersey) offered to replace the ROM with the new version 1.04 under warranty. John Arceleo called Osborne, got the ROM, replaced it, and the Vixen now is working perfectly. Thanks to John and J & D Assoc. for their assistance.

Kurt M. Gebauer
Hope, NJ

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Can the O-1's BIOS Be Modified to Read IBM PC/MS-DOS Format?

The October, 1985 ***FOGHORN*** contained a very interesting article by W. M. Steele concerning how to modify the Osborne 1's BIOS to permit a DD machine to read Osmosis DD format diskettes (*You Can Read Osmosis DD Disks Using the Osborne DD Board!*, p. 54). *[PCPIP on FOG/UTL.040 and PCPIP2 on FOG/UTL.043 will allow you to read and write single sided MS-DOS disks.]*

Insofar as the standard "factory-installed" DD system can read IBM CP/M-86 format diskettes, it seems probable that a modification similar to Steele's should be available to make DD Osborne 1's read IBM PC-DOS/MS-DOS format diskettes.

Has anyone worked out the sector translation tables and disk parameter blocks necessary to do this?

If so, an article similar to Steele's describing how to make the necessary BIOS modifications would be very useful.

Thanks generally for a publication that regularly gives me useful information.

Richard Gruner
Los Angeles, CA

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Avoiding Misinterpretation of $ Characters in .SUB Files

Byron McKay's exercise in patching MAC-80 (***FOGHORN*** June, 1985) to avoid misinterpretation of **$** characters in .SUB files, was heroic but unnecessary.

If you want to include a literal **$** in a .SUB file, all you have to do is put **$$** in the .SUB file. SUBMIT.COM will read this as a single literal **$** and will not attempt to substitute data from the SUBMIT command tail. For example, a typical MAC command from the keyboard:

MAC MYFILE $PZSZ

would be written in a .SUB file as:

MAC MYFILE $$PZSZ

This feature of SUBMIT.COM was used, without comment, in a ***FOGHORN*** article on the use of RMAC with C/80 (December, 1984 or January, 1985.)

John Allen

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Photographer Seeks an Outlet for Slides

I am an amateur wildlife photographer and I am seeking an outlet for slides of various forms of African flora and fauna.

I would like to make contact with persons or organizations who are interested in purchasing such slides either for resale or as collectors.

Anyone who is interested may write to me care of the ***FOGHORN***.

Please state in your letter:

1. The name of the species that interests you most;
2. The quantity you are likely to require; and
3. The price you are prepared to pay per slide.

Now, question time:

1. What do people mean by "squeeze/unsqueeze"?
2. How do you get /.COM to work? I followed the instructions in Vol. V No. 1 and CP/M replies /.COM?.

D. J. Bridges
Natal, South Africa

[Answer 1. See the June 1985 ***FOGHORN****, p. 16 for information on squeeze/unsqueeze.*
Answer 2. Just use / not ***/.COM****. Jack]*

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An MBASIC Program and Some Questions

I am sending along with this letter an MBASIC program (below) that I wrote to display the MBASIC programs on a disk and allow the user to run one of them. The program runs as is on either an Osborne 1 or a Morrow with a MDT 60 terminal.

FOG members may be interested in the input routine used in the program. The routine is sent the maximum length that the input can be (using LE%) and returns the input as a string (using Q$). After that you may convert the input to another data form or test it in any way you wish to see if it is acceptable.

I have some requests for information. I've done some assembly language programming and am looking for a good debugging program along the lines of the Apple BugByter program (a full screen debugger which displays the disassembled code, registers, stack, memory locations, and break points as the code is executing. Beats DDT by far).

I've seen that SLR Systems has a program "DSD80" which looks similar. Have other FOG members used this or other debugging programs for the Z80? If so I'd like to hear about your experiences, what programs you think are best, why, etc.

I am also wondering if any FOG members have purchased and used MTBASIC from Softaid, Inc? Softaid claims that MTBASIC is a multitasking BASIC compiler with windowing for MS-DOS and CP/M-80 systems and — get this — they want $49.95 for it! I am most interested in the CP/M-80 version.

I am also looking for people who are using the SWP coprocessor board for MS-DOS programs. Can we develop a list of programs (public domain and commercial) that work on it?

I have the SWP board in a Morrow MD3 (Morrow factory-installed) and have never been able to get the RAM-disk to install itself as Drive A, which is something I am supposed to be able to do. Every time I try it I am informed I do not have a standard CP/M system. The dealer is no longer carrying Morrows; Morrow is no longer using the SWP board; and my letters to Morrow are unanswered. If anyone has the answer please share it. In the meantime I'll try SWP.

Unless I've missed something, the public domain program PCFILE does not run on a Morrow. So while I support the idea of standardizing cooperative data bases as proposed by Dick Ezzard in June 1985 ***FOGHORN*** (Vol. IV No. 9, p. 11), I wish to challenge his comment that PCFILE ". . . works on many, many different computers".

If someone has a copy that will run on a Morrow, let's get it in the library.

I'd like to order some disks from the FOG library (no local FOG groups here in Central Wisconsin) but the catalog I have is kind of old and although I think I've managed to get the update sheets, it is difficult to make sense of the mass of papers and sheets I have in various degrees of disorder.

Is a new catalog or organization in the works? When will it be ready? *[January 1, 1986 is the target date for reorganization. Jack]*

This program will give you a listing of all BASIC files on your disk and let you run them from a command line with checking for correct name and illegal period.

```
10 REM MENU PROGRAM BY JAMES ALVEY       C 12-30-84
20 REM NONCOMMERCIAL USE ONLY
30 PRINT ''C  1984       JAMES ALVEY''
40 REM FOR INFORMATION CONTACT - JAMES ALVEY, 163 ETHEL ST.,
45 REM WAUSAU, WI 54401
50 REM THIS PROGRAM WILL DISPLAY A LIST OF BASIC PROGRAMS ON A
60 REM DISK THEN ACCEPT THE NAME OF ONE AS INPUT TO BE RUN
70 REM THE PROGRAM WILL BE LOADED AND RUN.
80 WIDTH 80:REM SET WIDTH TO 80
90 E$=CHR$(27):REM E$=<ESC>
100 BS$=CHR$(8):REM BS$=BACKSPACE
110 CL$=CHR$(26):REM CL$=CLEAR SCREEN AND HOME CURSOR
120 BE$=CHR$(7):REM BE$=BELL
130 RE$=CHR$(13):REM RE$=<CR>
140 S$=CHR$(127):REM S$=SOLID BLOCK (NOTE YOU MAY WISH TO;
CHANGE THIS TO SOME OTHER CHARACTER)
150 HQ$=STRING$(30,S$):REM HQ$=INPUT STRING 30 S$ CHARACTERS;
IN LENGTH
160 LEGALDRIVE$=''AB'':REM USED TO CHECK FOR LEGAL DRIVES IF;
YOU HAVE MORE DRIVES YOU MAY ADD THEM TO THIS STRING (i.e. FOR;
DRIVE C CHANGE TO LEGALDRIVE$=''ABC''
170 DRIVE$=''A''
180 PRINT CHR$(26)
190 PRINT ''THE FOLLOWING PROGRAMS ARE ON DRIVE '';DRIVE$;'':''
200 PRINT
210 RESET
220 FILES DRIVE$+'':*.BAS''
230 PRINT
```

```
240 PRINT
250 PRINT ''ENTER THE NAME OF THE PROGRAM YOU WANT TO RUN''
260 PRINT ''(EXAMPLE - MENU) NOTE DO NOT INCLUDE THE '.BAS' IN:
THE NAME''
270 PRINT ''END YOUR INPUT WITH A (CR)''
280 PRINT ''OR PRESS (ESC) TO CHANGE DRIVES '';
290 LE%=8
300 GOSUB 420
310 IF Q$=E$ THEN 360
320 IF INSTR(Q$,''.'')>0 THEN 260 : REM MAKE SURE THE ENTRY:
CONTAINS NO PERIODS
330 ON ERROR GOTO 510
340 RUN DRIVE$+'':''+Q$
350 END
360 PRINT ''ENTER NEW DRIVE THEN PRESS (CR) '';
370 LE%=1
380 GOSUB 420
390 IF INSTR(LEGALDRIVE$,Q$)>0 THEN DRIVE$=Q$ ELSE PRINT:
''ERROR NOT A LEGAL DRIVE - TRY AGAIN'':GOTO 360
400 GOTO 180
410 REM ******** INPUT SUBROUTINE ********
420 PRINT STRING$(LE%,S$);STRING$(LE%,BS$);:QZ$='''':QV%=0::
S%=0:WHILE QZ$<>RE$
430 QZ$=INKEY$:IF QZ$='''' THEN 430 ELSE IF QZ$=RE$ THEN 490:
ELSE IF (QZ$=BS$ AND QV%=0) OR (QV%=LE% AND QZ$<>BS$) THEN PRINT:
BE$;:GOTO 490
440 IF QZ$=E$ THEN QV%=1:MID$(HQ$,QV%)=E$:MID$(QZ$,QV%)=RE$::
GOTO 490
450 IF QZ$=BS$ THEN PRINT BS$;S$;BS$;:MID$(HQ$,QV%,1)=S$::
QV%=QV%-1:GOTO 490
460 IF ASC(QZ$)<32 THEN PRINT BE$;:GOTO 490
470 IF ASC(QZ$)>96 THEN QZ$=CHR$(ASC(QZ$)-32)
480 PRINT QZ$;:QV%=QV%+1:MID$(HQ$,QV%,1)=QZ$
490 WEND:PRINT:IF QV% THEN Q$=MID$(HQ$,1,QV%) ELSE Q$=''''
500 RETURN
510 IF ERR=53 THEN PRINT ''FILE NOT LOCATED - TRY AGAIN'':RESUME:
300
520 ON ERROR GOTO 0
```

James Alvey
Wausau, WI

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Finding Underlines in WordStar

I found a solution for what was for me the most annoying of all WordStar features: that you cannot check the underline **^PS** commands with the find command (**^QF**) to make sure that they are on both ends of the underlined material. I converted the overstrike command (**^PX**) into an underline command.

To do this with WordStar 3.3 enter the patch area by loading install and typing + when you obtain the menu. Type: **SOCHR** at the next request and answer **yes** to the next question. Change the first address, which is 2D, to 5F by typing **5F**↵ (↵ means hit the carriage return key) at the request for change and exit by typing a .↵ (that's period, then carriage return) at the next request.

Now **^PX** will underline instead of striking through the text. You can use the find command to locate the ^PX's by typing **^P^X** (not **^PX**) at the request for the text to be found.

If anyone knows how to search and replace the **^PS** command, I would dearly love to learn it.

Another suggestion concerns the keyboard. The Osborne keyboard was designed to be used at a greater angle than the case provides. If the top of the keyboard is raised one inch, typing is much easier because the tops of the keys are now level.

I'd also like to ask a couple of questions. The only bulletin board near me is in Harrisburg, PA and it is "down temporarily" permanently. It would be very nice if we had one in the mid-Atlantic states. Also, I tried the memory mapped video patch for WordStar with the September correction on my Executive with no luck. Any more corrections?

Keep up the good work.

Bill Rothstein
Baltimore, MD

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"Timing" The Screen

Never one to forego an opportunity to display my ignorance, I offer this program to the gang almost certain there is an easier way.

Here was the problem. I wanted my BASIC program to sign on with a logo, then without further action by the player to display instructions (what my betters call "menus").

So I needed to "time" my screen. I've owned my trusty Osborne 1 since the dawn of creation but I never learned how to do that.

The demo program below is my solution and I offer it to other fools like me. It can be tinkered with, put into a subroutine for frequent use, or whatever.

By the way FOG, thanks for your years of assistance to me.

```
100 ' THIS DEMONSTRATION PROGRAM INTRODUCES 3 PAUSES
110 '
120 FOR J=1 TO 5000
140 IF I=850 THEN 190   ' INCREASE VALUE OF ''I'' TO
150 '                   EXTEND PAUSE AND DECREASE
160 '                   (LESS THAN 850) TO SHORTEN
170 '                   PAUSE NOW SET FOR 8 SECONDS
180 NEXT I
190 PRINT''               PAUSE''
200 PRINT
210 NEXT J
220 PRINT''               DONE''
230 END
```

Al Ujcic
San Francisco, CA

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A Program That Helps IDS Printers with Proportional Printing

Mr. William TeBrake in a letter in the July 1985 ***FOGHORN*** inquired about a program (WSPROPOR.DOC) that I had mentioned in an article on configuring a printer for WS using EDFILE.

I obtained the file from an RCP/M about two years ago (I do not remember which) but I see it occasionally on the boards as an individual file. However, most of the time it appears now in a library of WS files. The .LBR file is usually 100 to 125K with 15 to 20 different WS help files in it. (The file is also listed as PROPOR.DOC.)

The DOC file gives the location in WS for each printable character and the amount of space that WS allocates for that character. WS allocates almost the same amount of space for an "I" as it does for a "W".

WSPROPOR.DOC lists the space that should be allocated to the character for proportional printing within the limits permitted by WS. The minimum space WS allows is still too much for the smaller characters and the maximum is not enough for the larger letters such as the "M" and the "W", but the change does make it easier for the IDS printers to do the proportional printing.

Once these changes are made a **^P** (control P) is embedded in the WS document at the top after any dot commands and this will toggle this section of the WS.COM file.

I have uploaded this file to the FOG BBS along with many others in the past year but none have appeared in the library as yet. Maybe "REAL SOON NOW".

If you are unable to find it on one of the RCP/M's give me a call at (704) 542-3889 and we can set up a modem transfer. The file is only 7K and I can send at 300 or 1200 baud using a MODEM7 batch transfer.

Jerry Boyce
Charlotte, NC

[There is various proportional spacing material released on FOG/CPM.010 (November 1985). Ed]

* * * * * * *

A Letter to Brother

[The author sent a copy of this letter to the Brother International Corporation and to FOG for the information of the membership.]

My Brother EP44 serial # M31851918, a high quality dot matrix typewriter/word processor that also functions as an RS232 terminal/computer printer, was sent to you for warranty service December 9, 1984 for problems as reported here. The unit was returned about mid-January 1985, with no reply and apparently no problems solved. A talk with someone in your Lake Forest, California facility, who knew nothing about such problems and had no idea how to interface an Osborne, nonetheless led me to try another test and apparently discover the solution.

I am sending a copy of this letter to the First Osborne Group so that they may inform their membership, at least on the interface information.

1.) Everything is OK when I print from my Osborne 1 DD with the keystrokes on the Osborne keyboard simply printing on the EP44. (This is caused by using ^P (control P) in CP/M to cause everything directed to or from the console to also appear on the printer.) However, when printing at full speed, as from DIRectory and SuperCalc2, spaces between the columns were lost.

   A different form of the same problem. When printing a file through modem software (a file which I successfully first transferred from the EP44's memory for storage in the Osborne), the left margin drifts closer and closer to the left edge of the paper. While this is happening, the letter formation is deformed (squashed) and interletter spacing is reduced. This is printing at 300 baud, with no delays, except the pauses caused by the EP44.

The problem is corrected by operating the EP44 from AC power rather than battery power. Apparently, weak batteries will cause this malfunction in the terminal mode, even though it gives no other sign of trouble.

I still have the following problems, however:

2.) When the Print/Cal mode switch is in the CP mode, the "Character Insert" works OK; but when in "Edit mode", placing characters in memory, many or most keystrokes are ignored when in the character insert mode.
3.) When in "Edit mode," it stopped going to line insert mode. At this time there were 79 characters remaining in text memory.
4.) Line formatting/line breaking seems OK when in CP mode, but is both different and improper when in edit mode.
5.) I cannot find how to transfer from a computer into the EP 44 text memory. Brother, or some knowledgeable person, please send me an explanation.

For the record, please make the following interface information (which works for me) available to your technicians, and others who may need it:

Osborne Settings
CP/M Setup

Speed 300	(1200 requires corresponding setup of EP44)
Printer	Standard Serial, + Pins 2->2, 3->3, 5->20 (Diablo XON/XOFF protocol works, obviates pin 20)
^P	Works normally
OK	Driven directly and via Drive C spooler

WordStar

Mine is normally configured for NEC 8023 (Centronics), i.e., TTY-like but through RS232C port. (Beware of Diablo or other configuration which may attempt microjustification, etc.)

SMODEM (modem software) Upload/download:

Uploads OK, from EP44 16K memory; prints OK; no way to load memory of EP44 known at present.

EP44 Settings

Plug in to AC power! Do not rely on batteries for terminal

mode! (See pg. 33 of the ***EP44 Instruction Manual.***)

Set selector switch from **NORMAL** to **TERMINAL.**

Put Power On; should say **OFF LINE** in display.

Hit **CONT** to go on-line:

NOTE: Default settings shown on page 33 should work as is, except that output will have one extra line feed (i.e., single will be double, double will be triple, etc.)

If it doesn't work, or to correct the line spacing, review the variable settings by:

Press **STOP/ON**; should say **OFF LINE** in display.

Press **MODE** to check/set variables; leave/set as shown on page 33, except set **NEW LINE** to **CR+LF** for correct line spacing:

BAUD RATE	300 (Unchanged)
BIT LENGTH	8 (Unchanged)
PARITY	N (Unchanged)
NEW LINE	CR+LF
CODE	7BIT (Unchanged)
ER	Y (Unchanged)

If you set CP/M to **XON/XOFF**, you may set **ER** to **N**, and do without Pin 20.

Press **CONT** to resume on-line mode.

I hope this is useful to both Brother and Osborne users.

John Michael Williams
Bethesda, MD

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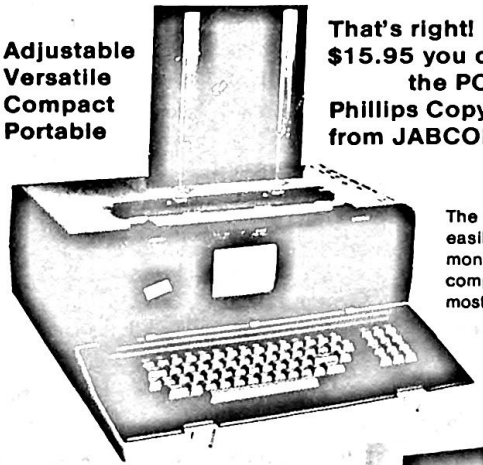

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TIPS FOR TYROS

Why Does CP/M Question Me?

by Bob Thomson

Have you noticed that when you enter a command like **DIRB:**, instead of **DIR B:**, the computer responds with DIRB:? Why does it ask that question?

When you enter a command word, CP/M is expecting the word to be the name of a command file, like **DIRB:.COM**. What CP/M does is look in the disk directory for a file of that name and of type COM. If it can't find such a file it responds with DIRB:?. It is asking: "Do you really mean DIRB:.COM? There is no file of that name in the directory."

The only time it won't return the first word with a question mark is when you begin your entry with a semicolon. Thus **;DIRB:** followed by a ↵ (carriage return) will print **A>;DIRB:** because CP/M treats anything following a semicolon as a comment and not as a command. This suggests that if you want to enter several lines of comments at the CP/M command prompt, you can do so by simply starting each line with a semicolon.

To print the comment lines, press **^P** (control P) to turn on your printer before you press ↵. This method will, however, also print the A> prompt at the beginning of each line.

[Reprinted from the May 1985 ***TOGGLE,*** *newsletter of the Tacoma/Seattle Area Osborne User Groups.]*

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Sorting Notes Using WordStar and the Function Keys

by Jim Holmes

In an article in the February, 1985 ***Portable Companion*** (pp. 57-61), (I've intentionally used the same title), Madelon Mottet describes a system for using the Osborne Function Keys and WordStar to keep sorted notes. The article merits reading in full, but I've put together the essential elements to get you started, along with a few "improvements" to the system, achieved by using the Public Domain utilities, FK.COM, OUTLINE.COM and DIRFILES.COM.

Collecting information for any project is never orderly. Most writers are familiar with taking then sorting notes as a first

⇨

step in the writing process. A way to speed this up through using your computer's "cut and paste" abilities is enhanced by letting the Osborne Function Keys enter the complex commands we must use.

Setting Up

Using SETUP.COM, these are the Special Function Keys defined by Mottet. A special, "WordStar SORTing disk" is configured:

```
Key ^0  — ^Q^Q^B1
Key ^1  — ^Kb^K1
Key ^2  — ^Kk^Qf@
Key ^3  — ↵bu↵^Qd
↵
Key ^4  — ^Kv^Kh^Q1^K1
Key ^5  — ^Kc^Q1^Qf@
Key ^6  — ^Qf@(ESC)^Qs^Kb^Qd^Kk^Qc^Kc↵^Qv ^X>^Kh
Key ^7  — ^Ks^Qp
Key ^8  — ^Kp
Key ^9  — pip a:=b:
```

The symbols ^, ↵ and <ESC> stand for the keys; control, return and ESCape, respectively; the number 1 (not a letter L), follows ^B, ^Q and ^K in the above assignments).

Using FK.COM

Although I agree with the practice of having several WordStar disks, each configured for the task(s) you want to do with it, I prefer to use a utility called FK.COM (by M. J. Guerra) to define my Function Keys. Besides being faster and easier to use, FK lets me create, store and change eight sets of keys. The full program (including key sets) is only 4K, so I keep it on most of my disks. It's very well-documented, so I'll not explain it here.

I should point out that only Key #'s 1-5 (above) are actually part of the SORTing process. Key ^0 is configured to reformat an entire document which is useful after extensive editing, or when margin settings must be changed. Key ^6 can be used to keep track of bin names, and is helpful in constructing an outline of your work. Key ^7 SAVEs the file (without leaving it), then returns you to your "place", to continue editing. Key ^8 invokes the Print function from within a file. Key ^9 is used to transfer files from drive B to drive A.

The insert below is what you'll see on your screen if you use FK.COM to configure your Function Keys as I have mine:

```
FK Function Key Programmer V2.0 - (C) 1984 MJ Guerra
Function Key Set: #2

1:   ^Kb^K1
2:   ^Kk^Qf#
3:   (CR)bu(CR)^Qd(CR)
4:   ^Kv^Kh^Q1^K1
5:   ^Kc^Q1^Qf#
6:   ^Qf#(ESC)^Qs^Kb^Qd^Kk^Qc^Kc(CR)^Qv^X)^Kh
7:   ^Ks^Qp(CR)(CR)
8:   ^Q^Q^B1
9:   SK2 SORTING
0:   FK 8(CR)

Arrows:
U:   ^E
R:   ^D
D:   ^X
L:   ^H

Select key to change, or <ESC> to exit.
```

Please note that the display above is different from what you see in SETUP. First, Key ^0 is after Key ^9, the way it is on the keyboard and, more importantly, you may redefine the Arrow Keys with FK.COM, and not just to CP/M or WordStar!

To FK, your Arrow Keys are simply four more Special Function Keys. Use them any way you choose within the space limitations of the Function Key register.

This configuration works well with CP/M and WordStar. In fact, many touch-typists already use these control/letter keys to move the cursor. If you do, use the Arrow Keys for extra functions!

In this configuration, Key #'s 1-6 are the same, and Key ^8 is used for the same definition Mottet gave to Key ^0. The first of several changes I made was to replace the symbol (@ with #, to avoid confusion when using OUTLINE.COM. I added two ↵'s to Key ^7; I only save at the end of a paragraph, and this returns me to the start of the next one. Key ^9 invokes a COMMERCIAL utility for redefining keys (SmartKey II+). I use SmartKey for defining sorting "bins", assigning name(s) to two keystrokes. My Key ^0 reloads a "carbon copy" of my SETUP-defined function keys (this returns me to "normal" status, once I've finished SORTing). To reload the SORTing key set, all I'd do is enter **FK 2**↵.

If you don't have SmartKey II+, don't want to buy (and learn) it, but need a few more "keys" redefined, you have eight sets to work with. Just define a "main" set, then use additional sets as needed for the extras. It's a good idea to leave one set done exactly as the SETUP keys have been defined so as to restore things to a normal configuration if desired.

If you find yourself defining more key sets than you can conveniently remember, FK will show you the definitions, or you can print them out and keep them on file cards. Should you want more definitions than available with FK's eight-set limit, just rename the program . . . FK1, FK2 . . . as many copies as you need. Each will be 4K with eight sets of "keys".

Using OUTLINE.COM

Once your SORTing keys have been defined, set up a file named OUTLINE (no extension) on a work disk. If you know the major categories you wish to sort for in advance, now is the time to organize the outline. (You can always change it later.)

Joel Kunin's OUTLINE.COM can be used in conjunction with WordStar. The following excerpt from the .DOC file explains how to use this utility. The input file format is:

```
@1 The Calendar.
@2 There are twelve months.
@3 Each month has four weeks.
@2 There are seven days.
```

@3 Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.
@4 Each day has 24 hours.

The program will convert this to:

```
I. The Calendar.
   A. There are twelve months.
      1. Each month has four weeks.
   B. There are seven days.
      1. Sunday, Monday, Tuesday, Wednesday, Thursday, Friday,
         Saturday.
         a. Each day has 24 hours.
```

There are a maximum of four levels:

@1 produces I. - XXXIX.
@2 produces A. - Z.
@3 produces 1. - 32767.
@4 produces a. - z.

The program may be invoked in the following ways:

1) outline myfile — will format myfile to the screen.
2) outline myfile > newfile — will create newfile containing the formatted text.
3) outline myfile > lst: — output will go to printer.
4) outline -m70 myfile > newfile — same as 2) but right hand margin will be at 70 rather than the default of 65. The range for -m is from 50 to 80.

Put each name (or phrase) for a sorting "bin" on its own line and mark each line (according to notes, above) for the appropriate "level". Blank lines separate categories. Use capital letters to distinguish bin names from notes. Precede each phrase or name with the symbol #, to identify it to the SORTing routine.

You may group topics in a single bin if you like. Just put those names all on one line (but do precede each with the # symbol).

You may refer to this bin by any of it's "names"! Before closing (^KD) the OUTLINE file, "write" a copy (^KO) to file SORTING (no extension); then close (^KD) the OUTLINE file. Now, from the no-file menu, hit (R); and at the COMMAND? prompt, enter **OUTLINE SORTING**↵.

You'll see your outline on screen in "nested" form, but the file itself remains unchanged. If you don't like what you see, go back and correct it.

OK, let's take notes!

Edit SORTING

First, enter a (^QC) end-of file command, then two ↵'s, to put a little space between your notes and outline.

Permanently mark (..1↵) this starting place for your notes.

Taking Notes

Starting at column 1 (no indent), take your notes in paragraph form with blank lines between them. Each may be up to 14K (maximum length for a "block move" in WS). Put OUTLINE indent level, SORTing and bibliographic information at the end of each note if you like.

Before sorting your notes, make additions to the outline headings, if needed. You may want to (^KW) write the corrected outline to the OUTLINE file. Go to top of file (^QR), and mark (^KB) it. Now use (^QF) to FIND? your (..1) marker, and (^E) to move up to the line below your last outline entry. Mark (^KK) the end of the block and (^KW) "write it" to the OUTLINE file. Answer **Y** to the question, DO YOU WISH TO OVERWRITE?. Now clear (^KH) the current block markers.

Sorting Notes By Function Key

^1

To sort, put the cursor at the beginning of a note and hit **^1**. This marks the beginning of the block, also putting in a numeric place marker. If you should make a mistake, "erase" the marker by hitting the **^1** key again, without moving the cursor. You may also "move" the marker, by placing the cursor at the proper spot, then hitting **^1** a second time.

^2

When you have marked the start of a note, move the cursor to the beginning of the blank line following, then hit **^2**. "This marks the end of the block, initiates the Find Function, and types the bin-name symbol **#**." Now type in the name or phrase you wish to sort the note to, in either capitals or lower case.

^3

To quote Mottet: "The ^3 key completes the Find Function and positions the cursor for the block move. Either ^4 or ^5 actually moves the note. Use ^4 if you are moving the note into a single bin and ^5 for copying into more than one bin".

^4

"The ^4 key moves a marked note up to the line below the appropriate bin; (^KV) moves the note; ^KH removes the dimmed lettering of the marked block; and (^Q1) moves the cursor back to the . . . next note to be sorted. Finally, (^K1) eliminates the numeric place marker".

^5

The ^5 key is used identically as ^4, up to the point where ^4 has completed it's tasks. ^5 initiates another Find? Search at this point. Enter another bin name, then hit ^3 to position the cursor. Use ^5 to move the note again. Continue alternating between ^3 and ^5 until you've placed the note in all the bins you care to. Hit <ESC> to clear the (unnecessary) last FIND?. Your original note remains in the unsorted section to be deleted (^Y) line-by-line, or by a manual block mark (^KB,^KK) and delete (^KY).

Some projects involve many sorting sessions over a period of weeks or months. New categories, etc., "invade" the outline as it grows in length. You may wish to keep a compact bin-list at the very end of your SORTING file to refresh your memory from time to time. You can (^KR) "read in" your OUTLINE file, or use the ^6 key to make it.

^6

The ^6 key is programmed to find a line containing the # symbol (^Q#<ESC>). It jumps to the start of that line (^QS) and marks it (^KB), jumps to the end of the line (^QD), puts a (^KK) marker there, then jumps (^QC) to end of file and copies (^KC) the marked line. After putting a blank line with a ↵ under the copied line, the cursor is returned (^QV) to the pre-

⇨

vious file position, dropped down a line (^X), and the block markers hidden (^KH).

To use the ^6 key, go (^QR) to the top of file and hit ^6 four times. No more than four bin names can be transferred at one time, because of the long command string invoked by ^6. When the first four have been copied, hit ^6 four more times, and so on until all categories have been transferred to the end of file.

Disk and Memory Limitations

A final point to make about SORTING files. The disk(s) used to collect and sort notes will fill up rather quickly, except for very short projects. Remember, WordStar requires three times the space on disk (four times, if the file is longer than 22K) of a file open in memory. Further, files longer than 14K cannot be moved in a single "block" operation. For these reasons, Mottet suggests (and I agree) EDITing with the page break (^OP) toggled off. In this mode, the figure following FC at the top of your screen tells you the total bytes in the file to the present cursor position. FC=8325 means the file is 8.325K long if you are at (^QC) end of file.

Sorted Files

Whenever the SORTING file gets over 10K, it's time to "break" it, i.e., to move it in some logical increment to a SORTED file. Mottet says: "To accomplish this task without having to leave WordStar, I move a large block to . . . drive A:" To do this, use (^KW) to write a marked block (^KB,^KK) to A:TEMP, then delete (^KY) the block. It's faster to recopy your outline than to erase the transferred notes line-by-line.

Be sure you transfer the A:TEMP file to another disk before you "quit". Use OUTLINE.COM (Option #2) to "nest" it, if you like. This can be done with the (R) option, from the no-file menu or you could simply copy it with the (O) option. In either case, rename it (SORTED1, SORTED2, etc.) when you transfer it. In this way, you'll never need to ERAse the A:TEMP file and you'll never be the hapless victim of a DISK FULL message, either!

Using DIRFILES.COM

DIRFILES.COM (Horn Engineering Associates) is a very handy DIRectory program, especially for use with the SORTing routine. It lists a current, sorted disk directory (it "updates" itself on additions/deletions) with a comment line for every file. You aren't required to enter comments, but if you choose to, you have 80 characters to work with per file. Descriptions can be changed whenever you like. Documentation is good, so I won't cover it here.

Use DIRFILES to keep track of your SORTED files and for anything else which requires "a bit more" than the eight (filename) characters CP/M allows for description. You may run DIRFILES from the CP/M prompt or from the no-file menu in WordStar using the (R) option.

When you're finally ready to WRITE, you'll want to use the SORTING process again to break your SORTED files down into smaller ones, sorted by subject. This done, you could even do a SUBJECT outline, then . . . I wonder . . . maybe . . . with a good set of notes, this project might just write itself!

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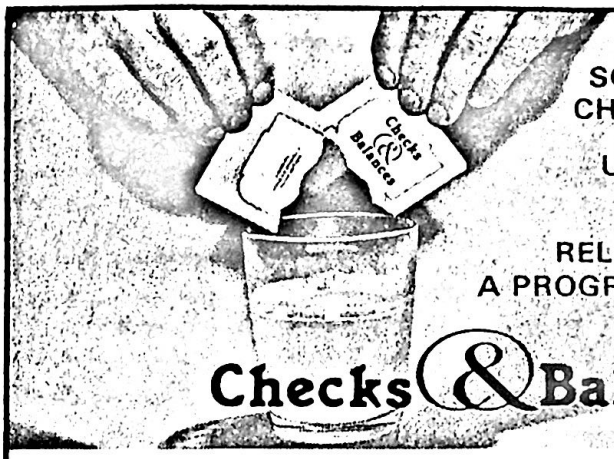

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ARTICLES

There Are European Programmers, too

by Arto Kytohonka

The American language, spoken by 250 million potential computer users and nicely documented by the late H.L. Mencken, is a beautiful language; the lingua sola of the united computocratia of the Western Hemisphere.

But fellow programmers, remember that we Spanish, French, German and Scandinavian people — with Yankee dollars to buy real American software — use the ASCII marks 5B, 5C and 5D plus 7B, 7C and 7D as letters with two dots, as a part of our vanishing material languages. Please don't exclude them.

I have a proposal. Use those marks between 21h and 2Fh as graphics, delimiters, etc.

The 1Eh also is a critical mark. When viewing WordStar text files with NSWEEP, (a master work by Dave Rand), a soft hyphen (1Eh) makes the screen unreadable. The 1Eh also is a pretty common home cursor command, too.

Why does 1EH makes such a difference? Hyphenation is one of the most crucial functions in a word processing program when writing in German, Swedish or Finnish, and there's always soft hyphens between the words after some **ings**.

In this cozily-international world of free enterprise and computerism, a little consideration for other languages wouldn't hurt. It even would make us computer-users in Indo-European (and Fenno-Ugrian) languages more pro-American.

In the spirit of Helsinki agreement!

[Later versions of NSWEEP don't have this soft hyphen problem. Send in your disk for an update. Jack]

• • • • • • • •

A Key Redefinition Program with Handicapped Users in Mind

by Charles Sandahl

This is a brief comment on a program that may be beneficial to others with similar problems.

I'm a paraplegic with limited use of one hand and this creates a problem when running programs that utilize the control key and simultaneously typing another key. I have come across a program that solves this difficulty. It's called XtraKey produced by XPERT SOFTWARE.

This is a key redefinition program that requires very little memory and has an almost endless capacity for long strings of characters. The whole keyboard can be redefined in several ways.

Of particular value is a file, called CONTROL.XSD, which was developed for another paraplegic. When loaded into the program the control function — instead of being a simultaneous input — now can be entered as a sequential typing of reverse slash \ plus a key.

I have talked to Bob at XPERT SOFTWARE and he has been extremely helpful. I find such support way above the norm.

The cost is also surprisingly modest, ranging from $37.95 to $49.95 depending on the particular model.

If any one would like to call XPERT SOFTWARE, the number is (619) 268-0112.

• • • • • • • •

Help Yourself!!

by Bob Thomson

I can remember my mother saying: "Curiosity Killed The CAT!" My saying for today is: "Don't You Believe It!" Beginners need to shed their timidity and exercise their curiosity.

In the March 1985 ***FOGHORN***, Gale Rhoades is distressed by the response she got from a former subscriber that the ***FOGHORN*** is too advanced and technical for the beginner. She (Gale) correctly points out that many beginner's articles were published in the early issues and and continue to be published in the **TIPS FOR TYROS** section, but the editors are reluctant to reprint the same articles over and over.

It is also true that back issues of the ***FOGHORN*** (as well as the ***TOGGLE***) are available so that those early beginner articles can be acquired and (it is to be hoped) read and acted on.

I don't dispute that we should publish some articles aimed at the beginner, and we will if someone/others, besides me, will write them.

BUT... you folks who consider yourselves to be beginners should not just sit back and expect to be spoon-fed information in one syllable words. You also have a responsibility to bring some effort to bear — to learn something about your computer. (I'll bet you didn't learn to drive a car and get your driver's license just by buying a car and starting the engine. You went somewhere for help and spent considerable time learning).

Your user group, its newsletter and its members all have shown a willingness to help you but although it is unspoken, there is an assumption that you will then pursue things a little farther on your own, and do some practicing — and exploring.

Get Curious

A friend of mine once wanted to ask me something and said: "Bob, I'm curious..." Before he could go on with his question I said: "I noticed that Randy, but I wasn't going to say anything about it!" He was put off by my smart-aleck remark for a while but finally asked what he wanted to know. I want to

encourage you to show some curiosity, and be persistent. If you are put off by the answers, or nonanswers you get, try again — maybe with someone else. And keep trying to answer your own question yourself.

When you bought your machine you received several utilities, among them PIP and STAT. We have had detailed presentations of the wonders of PIP at our user group meetings. Were you there? Have you tried any of its "special" features? Have you ever asked anyone at a Users Group meeting to explain things to you?

How about STAT? Have you ever typed **STAT VAL:**, or **STAT DEV:** or **STAT A:*.* $R/O**. What you are doing is mentioned in the blue spiral bound Osborne 1 ***Reference Guide*** in Lesson 6 on page 57, as well as in *CP/M Revisited* Lesson 2, pages 243-245 and the *CP/M Reference Section*, page R-14.

If you don't have the spiral-bound blue one, are you going to let that stop you? Thumb through your copy to find out what is in it — or buy ***OSDEX***. Look in Thom Hogan's book ***Osborne CP/M Guide*** or an equivalent reference. Be as resourceful about this as you would about anything else you really want to do.

There are many other utility programs available in the disk library, including NSWEEP, DUU (or DU-V77 or similar) (on the FOG Starter disk), TYPE17, (FOG/UTL.014), etc. Both the Tacoma and South King County Group treasurers have printed copies of the library disk documentation files available. And they both have the complete FOG disk library.

How long can you be classified as a beginner? In my opinion, if you've had your machine for more than six months, you don't qualify as a beginner anymore. If you have been a member of a user's group that long and haven't made any effort to get and use some of the neat programs around or haven't asked for help then that is too bad. We can't help you if you don't help yourself.

[Reprinted from the May 1985 ***TOGGLE****, newsletter of the Tacoma/Seattle Area Osborne User Groups.]*

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BOOK REVIEWS

Books on Programming for a "Computerphobe"

by Jim Holmes

I learned a lesson recently I'd like to share. Reread the ***Portable Companion*** and your newsletters now and then. You'll find lots you missed the first time. You know much more than you did when you last read through that stuff. You're getting pretty sophisticated!

Truth to tell, it's hard for me to say this of myself. I'm a bit of a technophobe, I guess. I waited too long before buying a computer (but I LOVE my Ozzy now!). Since buying it, I've avoided any programming, if I could and I've just started learning to use MBASIC!

I HAVE to write a program (part of a project at my work). When I talked to a couple of pro's about writing it for me, the price I was quoted made the decision easier.

I've been doing a bit of reading about language and it isn't obvious to me which one's best for the particular problems I face. Most of the books I've looked at so far haven't been much help. Any suggestions?

One book I'm delighted with — by Calvin Hofeditz for Doubleday's ***Made Simple*** series — is an excellent intro to the topic. ***Computer Programming Made Simple*** isn't elementary. The style is clear and easy to follow (no lapses into technobabble) but he keeps the focus practical (why learn things you can't use?). Discussions of BASIC, Pascal and COBOL provide organizational structure. Components (and the entire instruction set) for each language are given. Step-by-step examples are provided, showing how a program is written.

My MBASIC text was right on my own bookshelf — the ***Osborne User's Guide: Applications and Programming***, by Zimmerman, Conrad and Goldstein! I was following my own advice and was rereading an old ***Portable Companion*** when I came across a review by Keith Egger (August 1983, p. 61).

He writes: ". . . where the book shines is in describing MBASIC for the novice programmer. About two thirds of the book is devoted to describing MBASIC structure, functions, and commands. The text is easy to understand, and includes many examples."

After detailing the book's format, he "got me" with this sentence: "This is a good book for those who suffer from "computerphobia"". How right he was!

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SCREENCOPY captures everything going to the screen and copies it all into a disk file for later use. Records complete sessions for almost any program, allowing easy documentation! Even captures all screen output under MBASIC - I love it!

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Fantastic graphics package squeezes every last drop of graphics power out of your Osborne (specify 0-1 or EXEC).

- Full-screen graphics editor allows you to create, edit, and save screen images.
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LEARN TO TYPE! with this fantastic new program that smoothly and easily guides you from novice to expert typist. Special features allow use by teachers in the classroom, too!

TWO WEEK MONEY-BACK GUARANTEE

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You'll get the full Pascal system as above, plus a "toolbox" of handy sourcecode for sorting, installing terminals, indexing, and more. You also get the TUTOR-ON-A-DISK to lead you step by step through the Turbo Pascal system.

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HARDWARE REVIEWS

A Comparison Between Drive C and CO-Power 88

by Jeffrey Mints

Drive C has been around for several years and has received a number of reviews. Judging by communications published in ***FOGHORN***, CO-Power 88 is comparatively new to the Osborne community. It appears to offer much more than merely RAM-disk capability.

I do not know how many of us own both, but speaking as one such owner, I am able to make comparative judgments from firsthand experience, and would like to pass some of them on.

If you buy CO-Power 88, this is what you get:

(1) An add-on circuit board with an Intel 8088 microprocessor that will fit (albeit just barely) inside your Osborne case. It is user-installable. Allow one to two hours for a careful job. A fan of some kind is recommended.

If you can put in a Nuevo 80-column board, you have the level of skill required to install CO-Power. While soldering is not required for the CO-Power board itself, the true hardware interrupt recommended with it, does require cutting a trace and soldering a jumper wire between two points on the underside of the motherboard. You will need a true hardware interrupt because without it, clearing a hang-up will require turning the power off, thus killing all resident data.

This true hardware interrupt means a permanent modification to the Osborne, but I am not aware of any reason for not making it. The reset button will now get you out of any crash or hang-up, not just some, with main memory/RAM-disk content unaffected.

Full instructions with adequate diagrams are provided. Soldering or cutting into your costly motherboard may sound a little risky, but a patient, careful worker will have no problem. However you should have proper tools and be generally familiar with circuit-board soldering.

If you don't feel you can do this installation yourself or don't have the time, expect to pay at least $100 to have CO-Power installed by a competent technician. That seems high, but I couldn't get anyone in my area I would trust with my Osborne to do it for less. I was quoted as high as $150 in New York City. This did not include the hardware interrupt.

(2) 256K RAM (more if you buy the expandable version of CO-Power — up to 1 meg). The older and cheaper 256K version I bought cannot be expanded. The expandable version is about $150 more, even with only 256K. It is called CO-Power Plus. You can buy it with additional RAM or add RAM later on at $80 per 256K. The expandable version with maximum RAM comes to a little less than $800 for the Osborne at current prices. 256K-bit chips are used.

(3) Software that will allow you to use most of the available CO-Power RAM as a RAM-disk in 1K increments, like a standard double density disk. The software is easy to use. If you name the RAM-disk Drive A, physical Drive A becomes Drive B and physical Drive B becomes Drive C. I have found this to be the best arrangement. Input and output to the CO-Power RAM-disk is faster than with WestWind's Drive C, but the difference is slight and of no significance. Drive C has a disk activity light; CO-Power does not.

(4) Capability to format, read from, and write to IBM PC-DOS disks and to run SOME 8088 software programs written to operate under so-called generic MS-DOS (not the same as PC-DOS) on single sided disks. SWP stated in a letter to me that after August 1, 1985, they will no longer include the MS-DOS operating system. Presumably that means you will have to buy it separately or buy PC-DOS from IBM. CO-Power will boot with either MS-DOS or PC-DOS, but booting with PC-DOS does not give it normal PC-DOS program capability as found on IBM-compatible machines.

This last point is the one concerning CO-Power 88's limitations. Wider knowledge of the limitations would be of most benefit the Osborne community, I think. CO-Power's advertising brochure states:

(Heading) "SWP instead of IBM".

(Text) "MS-DOS is included with your CO-Power 88. Except for machine-dependent programs, that means that CO-Power 88 is IBM-PC compatible."

Note the emphasis on programs as distinct from disk formats in the reference to compatibility. Most microcomputer users who understand the term "machine-dependent" probably think they have a fairly clear notion of what such a program is. This might lead to a conclusion that CO-Power 88, like the Tandy 1000, would be able to handle IBM-PC compatible software that does not require IBM-unique ROM calls (like FLIGHT SIMULATOR) or make intensive use of screen graphics.

Unfortunately, this interpretation is not valid, but who am I to say that my concept of "machine-dependency" is more logical than the one relied upon by SWP Microcomputer Products, Inc., of Fort Worth? Only after paying about $500 for CO-Power and some additional system software for it did I learn that SWP, Inc. has some very different views on the subject of compatibility.

After installing CO-Power, I borrowed a number of general-purpose, IBM-compatible programs from a Compaq user to make a test and found that I could not boot any of them, not even the Public Domain "shareware" program, PC-Write.

After writing to CO-Power, I learned the reason. In the words of SWP's general manager:

". . . the software you sent and presumably the other software you mention are hardware-dependent or system-depen-

dent . . ."

"The definition of compatible changes depending on when the definition was written . . ."

"On a CO-Power product, all the I/O has to go back through the MSDOS.COM file and through the host Z-80. The majority of the work is done under CP/M BIOS. Therefore, the DOS you boot will not dramatically change the operation of the system or the programs . . ."

"When the CO-Power was introduced 'compatible' it was to be able to read and write IBM-PC format disk. Over the past two years this has been modified by every reviewer of a product. If you call IBM customer support department, they cannot define what is 'compatible' on any consistent basis . . ."

"Your Osborne has 25 lines on the screen, but the 25th line is hardware-driven and not directly addressable through the operating system. Osborne has addressed the 25th line in their operating system. When you change screen drivers (e.g.; IBM-PC or MS-DOS) you lose the 25th line special calls . . ."

What this explanation seems to add up to is that CO-Power 88, advertising brochure notwithstanding, is not fully hardware-compatible with the Osborne. Therefore it cannot be expected to allow Osborne owners to run non-machine-dependent, IBM-compatible programs, even though these same programs will run without difficulty on a Compaq or Tandy 1000. A deficiency of this kind would be fatal to a product like Drive C, created for the Osborne, but might not particularly bother a manufacturer for whom Osborne sales are only a small proportion of total sales.

I suspect that the primary problem may be the 25th line of the Osborne screen, which would have nothing to do with "machine dependency" (or lack thereof) in the software. But, after two letters, I received no information from SWP on how to modify either MS-DOS or the 8088 software so that it will work with 24 lines on an Osborne. Presumably, if a CO-Power version of the software can be produced, such modification is possible, but it may not be practical without source code.

(Is there anyone out there who does know about this?) It may well be that Kaypro owners do not have this problem when they buy CO-Power and if so, it would be much more valuable a product to them.

Mr. Romanus Wille's point about Osborne owners with CO-Power (July, 1985 ***FOGHORN***, p. 17) is well taken; we do need to pool our information and experience. Does anyone know of "off-the-shelf" IBM-compatible programs that will run on an Osborne with CO-Power? I suspect that there may be some, even though I have not yet found any.

I do not mean to suggest that CO-Power is virtually worthless; it does work and it will run properly-coded generic MS-DOS programs on the Osborne. There even exists a public domain MS-DOS user's group (SIG/86) based in Shrewsbury, Massachusetts.

The problem is that "properly coded generic MS-DOS programs" constitute a relatively small proportion of 8088 software sold and used today.

Installation of CO-Power on an Osborne will not interfere with the use of Drive C in the normal manner when running under CP/M, but you cannot use the CO-Power RAM-disk and Drive C at the same time, so as in effect to have two RAM-disks, even though CP/M can support more than four drives. Drive C cannot be used at all when CO-Power and MS-DOS are invoked, and the Osborne is running under MS-DOS (or PC-DOS).

In summary, if an Intel 8088 microprocessor and 256K or more RAM will suit your needs, CO-Power may be worth considering. The "bare-bones" system for the Osborne is about $400. If you want to get involved with 8088 assembly language programming under either MS-DOS or CP/M 86 (CP/M 86 must be modified by SWP — total cost about $80) or if you are willing to buy or restrict yourself to generic MS-DOS-written programs, CO-Power is probably the least expensive alternative for Osborne owners.

Given the limitations stated, it will work on an Osborne with 80-column screen. Generic MS-DOS takes full advantage of the 8088's 20-bit address bus, and can therefore address about 380K more memory than IBM PC-DOS. As far as I am aware, (from reading their literature) CO-Power does not offer the 8087 math chip.

But if you wish to run any 8088 programs commonly understood to be IBM-compatible, even though not sold by IBM or written specifically for the IBM PC, do not assume (as I mistakenly did) that conventional concepts of compatibility or machine-dependency are the ones relied upon by the manufacturer of CO-Power. As ***FOGHORN***'s advertising disclaimer reminds us, **Caveat Emptor!**

If you are considering CO-Power primarily for its RAM-disk capability as an alternative to Drive C, the only advantage that I see would lie in the more expensive version of CO-Power with more (up to 1024K) RAM. This version costs about $300 more than the 384K Drive C. There may be a few applications where huge RAM-disk capacity would be desirable, but if you really would use that much, I suggest you are probably be better off with a hard disk. As an experienced Drive C user, I have learned that 192K cramps your style a bit, but that 384K is fully adequate.

As an Osborne owner who has used both the CO-Power RAM-disk and Drive C on the same machine, I can strongly recommend Drive C. Drive C is a quality product created for the Osborne, and it is now proven and established.

When you buy Drive C, this is what you get:

(1) A well-constructed RAM-disk module that fits into the right-side pocket (under Drive B) of the Osborne 1 and connects to I-EEE 488 port and the external monitor port next to the reset button. Unlike CO-Power, it is highly portable and can be very easily installed or transferred to another machine without tools. (For those who own both an O-1 and an Executive, be sure to get the Executive version of Drive C. It costs more, but will also fit the O-1.)

(2) A software package that not only boots the RAM-disk, but also allows you to use it as a print spooler. The computer "prints" quickly to a portion of the RAM-disk, thinks printing is over and the machine is now free, while actual printing continues from the RAM-disk as you use the computer

⇨

for other tasks. If you have a slow printer, this feature alone does the job of a costly microbuffer. You can specify how much of the RAM-disk you wish to set aside for the print spooler. When you want to use this, there is a utility to "compact" files and create maximum space for the spooler.

(3) There is also an archive program which allows saving-to-floppy of files too large for one floppy. I have not used this program, but would surely need it if I had a single density machine. (CO-Power requires double density; Drive C does not.)

(4) If you have a hard disk, Drive C has cache-buffer capability which gives you extra-fast access to frequently-used files. This works with the Trantor hard disks sold by WestWind. It may also work with other brands of hard disks. I don't have a hard disk yet, so I can't speak from experience on this aspect.

The few software limitations in the earlier version of Drive C have been corrected and the general capability of Drive C expanded. I paid the earlier, $700 price for my 384K version, and consider that I received full value, even though a buyer today can get the same product for $500. The Drive C manual has been fully rewritten, and is now both comprehensive and excellent. If you use SuperCalc, Drive C will allow creation of very large spreadsheets.

My general conclusion from personal experience is that the advertising and several reviews I have seen, understate rather than overstate the real convenience and advantages of the Drive C Osborne hardware add-on. You cannot fully appreciate it's overall value without some "hands-on" experience. The basic reason is, I suppose, similar to the advantage of computers in general: a quantitative improvement of sufficient magnitude becomes, in effect, a qualitative change.

I learned how dependent I had become upon my Drive C when I sent my original 192K version to the manufacturer for upgrading to 384K. You soon realize that you do need and do use the "elbow room" of the empty RAM-disk space, and that not only time, but also considerable wear and tear on your mechanical disk drives is saved. Even if one floppy drive should become inoperable, an Osborne with Drive C and one functional floppy drive would be almost as useful as is one with two. As you use Drive C, you quickly acquire a fund of little "tricks and techniques" that exploit its full potential.

Disk-intensive operations like spelling checks, true sorts on lengthy data bases or lists, and squeezing/unsqueezing become a breeze. File manipulation read/write schemes that are too intricate or disk intensive to be otherwise practical, can now be experimented with and used. I was able to write a simple MBASIC program which "juggled" the fields in a data base. Library operations and the use of command libraries with LRUN.COM become especially attractive.

With NSWEEP, a distinct user-area on Drive C greatly facilitates the "housekeeping" tasks of reorganizing and consolidating files from several disks to one. RAM-disk read-write errors are virtually unknown. If you suspect that a well-used floppy is going bad, compare files on it with the same files transferred to Drive C. You will know at once if you are getting subtle floppy read errors. Also, a CRC check of all the non-data files transferred to Drive C is very quick and will give you a total CRC to compare with a known value, making it certain that there were no floppy read errors.

True, any RAM-disk is volatile, and you must save your work to a floppy before powering down, but this applies only to the file you are updating, not other files. The utilities and COM files you work with are normally unchanged, so need only be transferred in one direction one time when powering up. With NSWEEP, this bulk transfer is actually easier than invoking MS-DOS for CO-Power with the two separate boot disks required.

As the "volatile" copy in Drive C is always an extra copy, there is the added safeguard against "crashing" a valuable data base or document through some false move while working with it. If that should happen, only the changes since the last floppy/save are lost.

To be extra safe, you can remove from the machine the floppy with the valuable data after a file has been copied into the RAM-disk. Then save it alternately to two floppies, so that no matter what happens when a disk is in the machine, you will at all times preserve unharmed one data base or document.

Drive C allows you to rename the three physical drives in any functional combination desired, but there are a few software programs written which address physical, as distinct from functional, drives. Media Master is one of these. Drive A to Media Master is always the left side floppy; it can be used while Drive C is booted, but cannot take advantage of Drive C in making a file transfer. UNIFORM does not have this limitation and it costs only a little more than Media Master.

One final note. When I ordered my Drive C, I had the option of returning it for a full refund within 30 days if I should not be satisfied. In the future I shall never undervalue this type of guarantee: it bespeaks a manufacturer's integrity and confidence in the product.

When I complained to SWP that their CO-Power product would not boot common IBM-compatible programs as their advertising strongly inferred it would, there was no mention of adjustment or possible refund. Instead, SWP's general manager courteously stated that "SWP has never claimed to be a 'clone', nor have we tried to mislead anyone. There are thousands of happy CO-Power owners who use and understand the limitations of the product we provide. We are sorry that you are not one of those at present and hope that my letter has clarified some of the issues."

Again, CAVEAT EMPTOR . . .

• • • • • • • •

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The NEC8401A STARLET

Lap Computer

by Tory Salvia

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I've been waiting for a computer like the STARLET for a long time. I passed over the Radio Shack 100 because I wanted a full function lap computer that ran WordStar. I didn't even consider the Hewlett Packard or the Data General because of their hefty price tags. I almost bought the Epson Geneva but then I heard rumors of a new NEC model.

I'm glad I waited.

Here's a rundown on price, options, performance, and criticism (not much) of this remarkable Z80 compatible, 64K CP/M briefcase-sized wonder.

I purchased the STARLET for $900 — that's $95 below list — from a local dealer. He also included an AC power supply, serial and parallel cables, and cables for a cassette data recorder. A few weeks later I obtained a 128K external RAM drive made by Purple Computer. My dealer sold it to me for $300. It retails for $400. I'll discuss this nifty option shortly, but first let me acquaint you with the basic STARLET.

Overview

STARLET is designed to be the hub of a 64K CP/M desktop system. It comes with an Internal 300 baud modem and 90K of built-in software. This includes WordStar-To-Go, Calc-To-Go, Telcom (communications software which includes Modem7), and Filer (a simple data base program). These programs are stored in ROM memory and load into 64K of STARLET's internal RAM. (The STARLET divides this 64K into two 32K banks; one for the operating system and whatever application program is being used and the other 31K — 1K for formatting — as an internal RAM drive for data storage.)

The STARLET also includes a SYSTEM SLOT on its left side which accepts several peripheral cartridges, including a monitor/disk drive adapter, external 1200 baud modem, and external RAM drive.

With a disk drive attached (or the Purple 128 RAM drive) you can select the 64K mode in which all STARLET'S internal RAM is used to run larger programs. The optional monitor/disk drive adaptor allows you to connect the STARLET to a conventional CRT and enjoy a software switchable 25 line display.

STARLET runs at RAM speed — that means fastttttt! Programs load quickly and operate rapidly with zippy screen updates. Total performance is equal to an Osborne with Drive C.

LCD Screen

STARLET'S screen is its weakest element, but it's not all that bad. It needs external source of illumination. Outdoors, the screen is at its best where natural sunlight acts as the perfect illuminator. Indoors, fluorescent light is the best illuminant because it's closest to natural light. A contrast knob on the right side and a tilting screen also help adjust the display to your light source. For on-the-go work, I rate the screen acceptable.

The STARLET's 16 line, 80 column screen displays a large quantity of copy — much more than the 8 line, 80 column Epson Geneva or the new Radio Shack 200 with its 16 line 40 column display.

And unlike these other lap models, for indoor work, you have the option of plugging the STARLET into a regular 25 line CRT monitor.

On the Go . . .

BETHANY BEACH, DELAWARE — Well, here we are at the beach! And STARLET is with us. Write now I'm computing at the kitchen table with the ocean to my back. This isn't the best light for the screen, but I've adjusted the contrast and tilt to make the display acceptable. My son, Pete is sitting by my side and he says that he can see the letters "just fine".

We've been here one day now and this is the first time I've turned STARLET on. I spent the small amount of free time that I've had reading the ***User's Guide*** and the ***Personal Filer*** manual. They are well written for both the novice and the advanced user. The STARLET comes with four paperbound volumes; the ***User's Guide***, and manuals for WordStar, the spreadsheet, and the telecommunications capabilities.

There also is a compact, easy-to-carry reference guide that contains most of the basics. What you want to know is probably there somewhere though not always easy to find. Tutorials are provided for WordStar and the Calc-To-Go spreadsheet program. The one for the spreadsheet is quite helpful (I haven't used the other).

While building a sand castle with my youngest son, Jonathan, I gave some thought to designing a CALENDAR program using FILER. I wish STARLET came with one like the Geneva and Radio Shack models. Maybe I'll find such a program on the NEC RCP/M (312-364-0048).

Also, I'd like to modify WordStar's preset function keys. NEC tells me they are working on a COM program to do just that.

By the way, NEC provides user support for the STARLET through a telephone number and a STARLET Bulletin Board. The latter has an 800 number so that users can avoid long distance telephone charges. It provides services similar to those on the FOG Bulletin Boards, including a variety of public domain software programs.

So far, it seems to be easier to get through to the NEC Board than it has been, in my experience, to reach FOG. My one request for help was answered very promptly by Steve Sarna, the SYSOP for the Board.

Pete just typed in his name. He says he wants a STARLET for himself. Seven-year-olds learn fast.

Signing off from Bethany Beach, DL.

WASHINGTON, DC METRORAIL — I've always wanted to put my subway transit time to better use. Now I can with STARLET. In fact, most of this article was written on the Washington, DC subway. The STARLET works just fine when I sit next to a large window with good sunlight. It's hefty enough to remain stable and the more I type on the keyboard the more I like it. I especially like the **DELETE** key, a definite improvement over the Ozzi's ^- (control hyphen).

Today I pick up my "new" STARLET and leave the demo for my partner to check out.

. . . the train just went underground and the display is now getting it's illumination from the overhead fluorescents — not bad if I fiddle with the screen tilt and contrast control.

AMTRAK METROLINER: WASH., DC TO WILLMINGTON, DL — Working on the railroad with my NEC8401A! As we zoom along through the Maryland countryside with the sun splashing through the window (and a still jittery track bed) I'm plugged into the AMTRAK train's AC outlet via a Radio Shack surge suppressor. I read about an Ozzi owner doing this with his O-1 and yes it works!

I now have two sets of rechargeable NICADS, but I find that the STARLET is a bit of a power hog, so whenever I can tap into AC, I do. I like the rubber pads on the STARLET's underside — they give it a good grip on the slide-out food tray. The light from the window is just about right for the screen, but occasionally a passing shadow plunges the right side into semidarkness. I still believe it would be possible to incorporate a back light to assist the display, at least for AC operation.

. . . The train's power just went out as we arrived in Baltimore. But of course, no problem. I just switched the STARLET back on when the cabin lights returned, and here I am in my WordStar file where I left off!

Well, all aboard for Willmington!

(As I passed through the Baltimore tunnels, the power went out twice more. If I had been using my Ozzi, I would have lost everything since the last floppy disk save. Even with a Drive C BACKPAC, I still would have had to reboot.)

Batteries and AC

I have purchased two sets of size "C" rechargeable NICAD batteries for the STARLET. Paying for an endless supply of conventional batteries was just unacceptable. One set consists of four Mallories which I recharge in a recharger box. The other four are GE's in recharger brackets. The brackets contain two batteries each and snap into the sides of a GE wall outlet charger which is compact and convenient for traveling.

Four Dynacharge "C" cells came with the recharger box but they have a raised rim around the front edge which makes them too large to slide easily into the battery compartment. If you push, they'll go in, but why push? I traded them in on the wall charging GE's — more versatility too.

I also use a 12-volt rechargeable NICAD power pack, which I purchased some time ago to run my portable VCR. At Radio Shack, I found a voltage stepper (for $9) which plugs into the power pack's cigar lighter output and steps the voltage down to 9 volts. The voltage stepper has a universal output that plugs into the STARLET's AC input.

I do wish NEC had included a NICAD pack with the STARLET that charges while the unit is plugged into AC. I would have gladly paid the extra cost to avoid the current battery hassle and expense.

By the way, it's a good idea to keep the STARLET plugged into AC whenever possible. If you don't, the built-in CMOS batteries, which protect RAM memory, will drain the main batteries that power the computer.

I just saw a pilot TV commercial for a solar cell charger called SUNPAK. The commercial showed the unit powering portable TV's, tape decks . . . and a TS100 lap computer. SUNPAK is weatherproof, comes in a flexible zipper closing briefcase. It will sell for under $100.

Transferring Files Between STARLET and the Exec and O-1

I've found that up and downloading files between the STARLET and my Executive and Osborne 1 are fast and simple. The technique is the same, with one major difference. The Executive requires a null modem cable or null modem adapter (about $30 at Radio Shack) while the Osborne 1 does not.

STARLET — Executive

Connect the STARLET's RS232C port and Exec's RS232C modem port (not the RS232C printer port) with the serial cable. If you're using a null modem adapter, you can plug it into either the STARLET or Exec RS232C port. Next you need a version of Modem7 communications software for the Exec with one important hitch. The Exec version of Modem7 must support CHECKSUM error checking because this is the only data checking method included with STARLET's Modem7. If your Exec Modem7 is running CRC error checking only, then the two machines will not talk.

I use the public domain program, MEX.COM by Ron Fowler. MEX switches from CRC to CHECKSUM if it doesn't make a successful transfer on the first try. I've used the INIT command to default MEX to CHECKSUM and set the baud rate to 19,200.

I've had excellent results with transfers from the Exec to STARLET at 19,200 but frequently get an error message when uploading from STARLET. However, when I reset the baud rate to 9600, the transfer works. Here are step-by-step directions for file transferring.

Preparing the EXEC:

* Connect null modem cable (or null modem adapter) to Exec RS232C modem port.
* Turn on Exec and boot the system disk.
* Run MEX.COM (or another version of Modem7 with CHECKSUM).
* Use the SET command to set MEX to 19,200 (or 9600 baud).
* Use the STAT command, CHECKSUM ON, to toggle CHECKSUM checking on and CRC checking off.

Preparing the STARLET:

* Connect null modem cable (or null modem adapter) to STARLET RS232C port.
* Turn on STARLET and select TELCOM from menu.
* Press **Function key 1** for SETUP.
* Press **down arrow** to position cursor for protocol selection.
* Press **right arrow** to select Protocol On (this selects Modem7 protocol).
* Press **down arrow** to position cursor for baud rate selection.
* Press **right arrow** until baud rate changes to 19,200 (or 9600).

* Press **down arrow** to position cursor for Exit (or Save if you wish to save these settings in memory).
* Press ↵ (return) to exit to TELCOM.

Uploading a File from STARLET:

* Press **function key 5** and hit ↵ to display file directory (optional).
* Press **function key 3** to place TELCOM in upload mode.
* Respond to upload prompt by entering file name. (Add **/w** to end of file name if you wish TELCOM to strip out WordStar control codes and convert to ASCII file).
* Press ↵ to begin. STARLET will wait for SYNC signal.
* On the Exec: at MEX command prompt, enter **R <d:filename.ext>** and hit ↵ to receive the file.

After STARLET receives the SYNC signal and required NAKS, sector numbers zip by at lightning speed until the end of file transfer message returns both computers to terminal mode. Now whatever you type on the Exec keyboard will appear on STARLET's screen, and vice versa.

Downloading a File from the Exec

Follow the above procedure except:

* Press **function key 4** on STARLET to place TELCOM in download mode.
* Enter **S <d:filename.ext>** and hit ↵ on the Exec to send a file.

The file transfer procedure with the Osborne 1 is the same except for baud rate. Use the MEX SET command to set the baud rate at 1200. If your system includes an Osborne Comm-Pac modem, unplug the cable from the 9 pin port connector. If you don't, Ozzi will think you want to send to the modem and bypass the serial port.

For the Osborne 1, you do not need a null modem cable. That's right. STARLET's standard serial cable will do just fine. In fact, the transfer will not happen if you use the null cable. However CHECKSUM protocol is still required, so use MEX.COM for the O-1.

I informed NEC software of this and they may come up with a CRC update, along with batch transfer capability which they admit they left out of STARLET's Modem7 program. That would be extremely useful when you want to upload a batch of small files to clear STARLET's memory for one medium-size job. (**PIP *.*** will output all files from STARLET to a cassette recorder, but STARLET's STAT DEVICE assignments do not allow PIP file transfers through the RS232 port to another computer.)

Internal 300 Baud Modem

It's not an "extra" and it works. I haven't spent much time with it since I run a 1200 baud Robotics from my Exec. However, the Robotics will work with STARLET through its RS232 port. Simply flip STARLET's baud rate switch (located next to the RS232 port) to 1200 and go!

The TELCOM program accommodates macros for automatic dialing and data base log-ons. The manual provides explicit directions. STARLET also provides a LINE input that allows it to function as an automatic phone dialer.

Purple Computer's 128K External RAM-disk

For me, the availability of a large RAM storage device was a deciding factor in purchasing the STARLET. Imagine, 128K of storage in about the size of a cigarette pack! That's Purple Computer's SIDESTAR RAM-disk cartridge. It transforms a high class note taker into a full powered computer, capable of doing "real" work that requires at least moderate data storage capacity.

This little gem plugs into STARLET's system slot, just like the external RAM cartridge offered by NEC. But SIDESTAR is smaller, protruding less than two inches from STARLET's side, and it provides FOUR TIMES more storage than NEC's version, which offers only 32K.

Purple's RAM drive also includes an expansion buss to which you can connect NEC's CRT/DISK DRIVE adaptor. With this configuration, you can run NEC's 3-1/2 inch micro disk drive as Drive A and SIDESTAR as Drive B — an option not included with NEC's RAM drive.

SIDESTAR is powered by lithium batteries that Purple says will last from five to seven years. The unit is sealed, so in 1992, when the batteries finally die, I guess I'll have to send the unit back to Purple. They say they'll replace them free, if you have a problem during the first five years — Star Trek!

Purple admits that plugging the unit into the system slot is a bit tricky at first (and I agree.) Their compact (but well-written and understandable) ***User Document*** lacks a picture for visual directions.

Make sure the power to the STARLET is off before you connect! If the power is on, damage may occur. SIDESTAR goes in "hump" and ID plate down. It takes a little fidgeting to mate the connectors when new, but with each attempt it becomes easier.

Once it's in ("the last 1/8th" should feel tight as you push" says the instructions) turn STARLET on and press **function key 10** to format the RAM disk. Select **RAM 2** and respond to the prompt with a **YES**.

Zap, it's done! SIDESTAR now becomes Drive B, so enter **B:**↵ to make SIDESTAR the default drive. STARLET's built-in 32K RAM drive remains Drive A. Once on Drive B, the menu will announce RAM 2 and you'll see the beautiful message, 124K bytes free (SIDESTAR needs 4K for formatting).

While using SIDESTAR as Drive B, STARLET's built-in ROM programs operate the same way. You can perform all housekeeping functions on either drive, just like a two floppy disk drive system. For example, if you're in TELCOM on Drive B and want to see the directory of Drive A, press **function key 5**, then add **A:**↵.

You can also up or download files from Drive A while on B, and vice versa. If you're in WordStar, you can also read or write files from (to) either drive. SIDESTAR makes STARLET a truly powerful lap computer at a reasonable price.

Yes, I must admit, these last few lines are being written at 35,000 feet aboard a Boeing 737 about to touch down in Jacksonville, Florida.

Look Mom! They do make computers that fly! — T.S.

About the Author

Tory Salvia is President of TS, INC. VIDEO & FILM PRODUCTIONS with offices in Annapolis, MD and Washington, DC. He uses two Osborne 1 computers and an Osborne Executive for scriptwriting, budgeting, production breakdowns, storyboards, accounting, and electronic mail. He is a member of FOG and a local member of the Capitol Osborne User's Group. The NEC STARLET/PURPLE SIDESTAR now occupies a permanent place in his briefcase.

[The NEC8401A STARLET is now being shipped with a large size LCD 80 column/16 line display for improved viewing. NEC may make upgrade kits available. TS]

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A Great Printer Buffer for Any Budget

by C. J. Lagemann

In the June 1985 ***FOGHORN***, T. J. Kring reviewed Digital Devices 16K printer buffer. Although it did not contain some of the attractive features of the more expensive units (such as a repeat button for multiple copies), at $119.95 it was quite the bargain.

Well, as you might have come to expect in the microelectronic business someone has gone one better.

A company with an unimaginative but truly descriptive name of Reasonable & Commercial Sales Incorporated (8115 S.E. 82nd, Portland, OR 97288 (503) 775-3939) offers a product they call cleverly enough the "64K Printer Buffer".

The unit comes in a compact 6" x 10" x 1-1/2" white plastic case with a wall plug transformer-type power supply. Its small size makes it easy to place anywhere. Other features you would expect to find only on expensive units include a repeat button, a buffer clear button, and a buffer full LED indicator, all conveniently located on the faceplate.

Now for the best part: Would you believe you get all these features for the incredible price of $89.95!! (plus $2.50 postage and handling).

The buffer uses standard 36 pin centronics connectors and was 100 percent compatible with my Osborne-1/Epson MX-80 setup. To connect it up I just:

a) Disconnected the printer cable at the back of my MX-80 printer and connected it into the back of the buffer;
b) Connected the 18" buffer cable into the printer;
c) Plugged in the wall transformer, and;
d) Started printing away.

What could be simpler?

A couple of other things are worth mentioning. The buffer includes a self test program which automatically runs each time the buffer is turned on. The unit comes with a 30 day limited warranty (free from workmanship and material defects), and a brief but adequate owner's manual.

I was also quite pleased to receive my buffer within five days of ordering it. (I used a money order, due to the advertised two week delay for personal checks). After a week of heavy operation — at this writing — I have had absolutely no trouble with my buffer. (I had a large backlog of documentation to library software to print out.)

If you're looking for a printer buffer to free you from the drag of waiting for your printer to catch up, with all the nice features of those elite (expensive) brands, but are operating on a slim budget as I am, then try the 64K Printer Buffer. I don't think you're going to find a better buy for a long time to come.

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John Gaudio is an electrical engineer holding two U.S. Patents on computer systems. He's been a consultant to Osborne Computer Corporation and continues to write for their magazine, the Portable Companion, Foghorn, Dog Bytes, and his own newsletter, the Survivor's Guide. Since 1981 he's been helping people get more from their Osborne Computers.

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SOFTWARE REVIEWS

Footnote Programs: Review and Comparison

by Keith Conover, M.D.

Introduction

This is a comparison of three related programs: Footnote, sold for $99 by Pro/Tem Software, FTNOTE14.COM, (a "freeware" program available in the public domain on many bulletin board systems, and in the FOG Library); and wsNOTE, the FTNOTE14.COM successor, which sells for $25. These programs are used with WordStar text files, and simplify the use of footnote and endnote references. I have all three programs, and would like to share with you my perceptions of their special features, ease of use, and bugs.

Footnote Programs in General

Let me outline how these three similar programs are used. You create a text file which is to have numbered footnote references. You insert a special symbol where a footnote call is wanted, e.g., at the end of this sentence. **[##]** Somewhere after each of these footnote calls or after several footnote calls — usually at the end of a paragraph — you type in the corresponding footnote or footnotes. Thus. **[##]** The footnotes marked (Figure 1, below) are shown as you would enter them for FTNOTE14.COM, and the footnote marked (Figure 2) appears as it has been formatted by that program.

##. Thus, this is where you would type the footnote to accompany the first footnote call in the preceding paragraph.

##. This is where the second footnote would be placed. The footnote program would then number both footnote calls and footnotes and put them at the bottom of the appropriate page.

You then run the footnote program from the CP/M prompt (or from the **R** option of WordStar, (though the program runs a bit slower that way) to number the footnotes and format the file with the footnotes neatly at the bottom of each page.

The process is slightly different for each program.

Footnote uses two steps, first numbering the footnote calls and footnotes, then formatting the file as a second step.

FTNOTE14.COM also uses two steps, first extracting the footnotes into an endnote file, then both numbering and formatting as the endnotes are merged back into the text file.

wsNOTE does everything in one fell swoop.

Each program has an option of pulling out the footnotes to a numbered endnote file if that's what you want and both Footnote and FTNOTE14.COM allow endnotes to be merged back into the text file for easy reediting.

General Comments

If you are going to write only a short paper with just a few footnotes it's probably not worth the time or effort to use a footnote program even if you have it on the diskette and know how to use it. However, when you are working on a 10 or 20-page paper with several references per page, especially one that requires many revisions, a footnote program may save you hours of work.

All three programs provide the standard functions described above, and work well once you know their foibles, but I found all to be unforgivingly intolerant of stupid errors. When using each program the first time (always the night before a paper was due), I experienced extended periods of frustration, so allow time to become familiar with whichever program you chose.

Now I'd like to discuss each program, starting with the oldest (and most expensive). [1.] (Figure 1)

1. This is a footnote. The number 1 in square brackets in the text is a footnote call. That explanation, and a demonstration of the way FTNOTE14.COM formats footnotes, are the only reasons for this footnote.

Footnote

```
. . .blah blahblah blah blahblah blah. @ Blah
blah BLAH blahblah, blah-blah blah.  Blah, blah-
blah blah blah blah; blah blah: Blah-blah Blah.
Blah blah blah, blah blah. @                    (

                                                (
@ Blah.  Blahblah Blah.  Blah:blah, blah.       (
.pa                                             (
-------------------------------------------------
     Blah blah blah, blah-blah . . .
```

Figure: text file entry of footnotes for Pro/Tem's Footnote

Pro/Tem's Footnote has been around for several years. It has a configuration menu giving you several options. You may specify one of three options for the footnote call format (superscript, subscript and underscore, or just underscore), and one of two options for the footnote format ("same as footnote call" vs. just the number and a period). When you number footnotes, you may specify a number other than 1 to begin with, so it is easy to footnote separate files (e.g., book chapters) so they have sequential footnote numbers.

Using the end-of-text and footnote rule control characters properly, it is possible to enter footnotes in the middle of a paragraph without disrupting the paragraph's appearance in the final printed version. Neither of the other programs discussed have this capability.

Footnote uses the symbol @ to mark footnote calls and footnotes; the program replaces these by matching numbers. A control-character symbol (default = ^Y) is used to signify the end of text before a footnote or group of footnotes. A second control-character symbol just before each group of footnotes indicates where a footnote rule (the line of dashes separating the text from the footnotes) should appear (default = ^R). A WordStar **.pa** page command ends each group of footnotes. (See Figure.) If several groups of footnotes are merged onto one page, the excess footnote rule symbols and **.pa**'s are discarded.

However, with all these special control characters, I find it easy to make mistakes that cause the program to mix text and footnotes with wild abandon, and sometimes to throw pieces of the text into never-never land.

Footnote's file handling works the same as WordStar, i.e., making .BAK files of your previous version. It also requires two passes of the program, each replacing the original file and naming it to .BAK, to footnote a file (numbering and formatting are two separate operations). Therefore the initial text file is lost by the time you finish producing the formatted version, and it is possible to lose some of your original text if you've made certain stupid mistakes.

In an intermediate stage of the program, a third control character is used to replace each note call (default = ^E), such that each footnote call number or footnote number is preceded by this character:

^E2. Blah, B.^SBlah Blahblah Blah Blah Blah.^S
Blah:blah, blah-blah.

Therefore there are three control characters (including the two control-characters used to separate text from footnotes) which will appear in your text at various times. If you use control characters for special printer effects (e.g. WordStar's ^Q, ^W, ^E, and ^R), or if you use other programs that require special control characters in the text, such as Superdex (an indexing program from Spite Software . . . highly recommended), you must use a Footnote configuration option to select a different set of control characters, and you might want to strip the excess control characters from your file before printing.

(See my article in the August, 1984 ***FOGHORN*** for a particularly convoluted way to do this.)

Another problem with the program is it is finicky and has difficult-to-predict handling of carriage returns before and after footnote blocks. I often have to add or delete carriage returns after formatting, though less so as the program and I have become better acquainted.

I have found a few bugs where the program moves portions of text to the next page for no reason I can perceive. I also find all the extra page breaks (from the **.pa** at the end of each group of footnotes) to be annoying visual clutter, but others might not mind that.

I have release 2.2 of Footnote, as distributed in the Osborne WordPac. About a year ago I wrote away to inquire about upgrades, using the address listed on the software, but never received a reply. I see from Jim Spickard's article in the June, 1985 ***FOGHORN*** that Pro/Tem has a new address, and that the

cont. on page 39

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CALENDAR

Under this heading you will find the listing of activities and events of Affiliated Member Organizations. Listings are the responsibility of the groups' officers. Officers must have corrections into FOG office by the first of the month prior to publication (December 1st for the January issue). For a list of other groups, see *"CONTACTS"* in back issues starting January, 1983, or send a stamped, self-addressed envelope to the FOG offices. Please include a note with your geographical area. To verify the meeting date, time, or location, call the number in the right hand column.

Date	City	A.M.O.	Day	Time	Meeting Address	Contact No.
Feb 17	Soldotna, AK	18-PenFOG	3rd M	7:00pm	Totem Realty, 44669 Sterling Highway	907-262-5801
Feb 17	Anchorage, AK	63-GLOB	3rd M	7:00pm	Wendler Jr. High School,Room 133, 2905 Lake Otis Parkway	907-276-6484
Mar 13	Sitka, AK	83-BUG	2nd Th	7:30pm	Human Services Center, 207 Moller Dr.	907-747-8615
Mar 11	Ketchikan, AK	89-KCPM	2nd Tu	7:00pm	1182 Black Bear Road	907-225-9249
Feb 22	Homewood, AL	49-FAOUG	last Sa	1:00pm	Homewood Public Library, 1755 Oxmoor Road	205-669-4396
Mar 6	Huntsville, AL	125-NAOUG	1st Th	7:00pm	Madison County Court House, Jury Venire Rm	205-881-0377
Mar 13	Ft. Smith, AR	23-AFOG	2nd Th	7:00pm	Lewis Paint and Supply, 4900 Wheeler Avenue	501-785-0820
Mar 4	Tempe, AZ	100-TOG	1st Tu	6:30pm	Tempe Public Library, Pyle Adult Center, Southern Ave at Rural Rd	602-438-2731
Mar 26	Stockton, CA	11-SOG	4th W	7:00pm	Citicorp Savings, Pacific Ave.	209-951-4701
Mar 10	Fresno, CA	35-FROG	2nd M	7:00pm	1434 West Shaw, Suite A	209-683-2252
Feb 25	Porterville, CA	66-SVFOG	4th Tu	6:00pm	1502 North Lowery	209-781-4123
Mar 11	Porterville, CA	66-SVFOG	2nd Tu	6:00pm	1502 North Lowery	209-781-4123
Feb 19	Long Beach, CA	130-OPEN	3rd W	6:30pm	C.S.U., Learning Assistance Center	213-498-4186 x 5350
Feb 6	Campbell, CA	1-1st FOG SV	1st Th	7:30pm	Campbell Public Library, 30 N. Central Avenue	408-371-8699
Feb 20	Cupertino, CA	1-1st FOG SV	3rd Th	7:30pm	Cupertino Public Library, 10400 Torre	408-371-8699
Mar 14	Castroville, CA	5-MBAOCUG	2nd F	7:00pm	Castroville Fire Station, Rec Room, Speegle & Pomber	408-728-1416
Feb 27	San Francisco, CA	2-SFCS	4th Th	7:00pm	St. Aidan's Church, Goldmine & Diamond Hgts.	415-239-1399
Mar 12	Oakland, CA	3-East Bay FOG	2nd W	6:00pm	B & B Electric, 2832 Ford Street	415-272-9099
Mar 11	San Rafael, CA	31-MOG	2nd Tu	7:00pm	San Rafael High School, 2nd Street	415-897-0629
Feb 19	Walnut Creek, CA	60-MTDOG	3rd W	7:00pm	Thurman Casey Memorial Library, 2661 Oak Grove Road	415-933-2665
Feb 17	Menlo Park, CA	68-SMOG³	3rd M	7:30pm	Crane Place, 1331 Crane	415-325-2442
Mar 3	Menlo Park, CA	68-SMOG³	1st M	7:30pm	Crane Place, 1331 Crane	415-325-2442
Mar 10	29 Palms, CA	114-HOG	2nd M	6:00pm	CONFIRM	619-367-9783
Feb 19	Arcata, CA	29-HOG	3rd W	7:15pm	Humbold State Univ., Science Bldg., Rm 126	707-445-2074
Mar 6	Santa Rosa, CA	56-No. Bay FOG	1st Th	7:30pm	Valley Oak Park Rec Hall, 2600 Northcoast St.	707-526-0250
Mar 2	Orange, CA	113-NOCOG	1st Su	2:30	Chapman College, Science Bldg., Rm 128	714-952-5627
Mar 4	Santa Maria, CA	42-SMOG	1st Tu	7:00pm	Sears Savings Bank, 401 South Broadway	805-937-1128
Mar 13	San Luis Obispo, CA	47-CCOG	2nd Th	7:00pm	TRW, 1050 Southwood Drive	805-544-4267
Feb 25	Santa Barbara, CA	69-OSBUG	last Tu	7:30pm	SB Planning Rm, 105 E. Anapamu St	805-687-8541
Mar 14	Chatsworth, CA	86-ONUG	2nd F	7:00pm	Wizard of OsZ 20630 Lassen Street	818-709-6202
Feb 24	Sherman Oaks, CA	106-TUG-NET	4th M	7:00pm	Central Savings, 4464 Van Nuys Blvd.	818-994-6567
Mar 6	North Hollywood, CA	106-TUG-NET	1st Th	7:00pm	Valley Plaza Park Community Center, 12240 Archwood	818-994-6567
Mar 13	Davis, CA	6-MUGSY	2nd Th	7:00pm	CONFIRM	707-557-5162
Mar 5	Sacramento, CA	61-SOG	1st W	7:00pm	SMUD Utility Bldg, 1708 59th St	916-456-4139
Mar 6	Denver, CO	4-DOG	1st Th	7:00pm	Clements Comm. Center 2nd Floor 1580 Yarrow	303-690-6301
Feb 26	Boulder, CO	65-BUG	4th W	7:00pm	Colorado Univ. Business School, Rm 101	303-494-8741
Mar 12	Boulder, CO	65-BUG	2nd W	7:00pm	Colorado Univ. Business School, Rm 101	303-494-8741
Mar 5	Thornton, CO	85-MIST	1st W	7:00pm	12599 North Colorado Blvd	303-451-0456
Feb 19	Ft. Collins, CO	115-FTCOG	3rd W	7:30pm	C.S.U.Ind. Sciences Computer Lab, 200 W. Laurel, Rm 200	303-226-4156
Feb 19	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647
Feb 26	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647

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Date	City	A.M.O.	Day	Time	Meeting Address	Contact No.
Mar 5	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647
Mar 12	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647
Feb 26	Danbury, CT	40-DOG	4th W	7:00pm	Danbury Hospital Library,2nd Floor, 26 Hospital Avenue	203-775-1102
Mar 12	Danbury, CT	40-DOG	2nd W	7:00pm	Danbury Hospital Library, 2nd Floor, 26 Hospital Avenue	203-775-1102
Feb 20	Orlando, FL	16-GOOUG	each Th	7:30pm	Gard Micro Systems, 7525 Currency Road	305-847-7031
Feb 27	Orlando, FL	16-GOOUG	each Th	7:30pm	Gard Micro Systems, 7525 Currency Road	305-847-7031
MMar 6	Orlando, FL	16-GOOUG	each Th	7:30pm	Gard Micro Systems, 7525 Currency Road	305-847-7031
Mar 13	Orlando, FL	16-GOOUG	each Th	7:30pm	Gard Micro Systems, 7525 Currency Drive	305-847-7031
Feb 20	Maitland, FL	20-CFLOG	3rd Th	7:30pm	Lake Faith Villas Club Room, Maitland Blvd	305-298-8576
Mar 6	Maitland, FL	20-CFLOG	1st Th	7:30pm	Lake Faith Villas Club Room, Maitland Blvd	305-298-8576
Mar 9	Miami, FL	26-GCOUG	2nd Su	1:30pm	F.I.U Tamiami Campus, Building DM, Room 100	305-233-1779
Mar 13	Ft. Lauderdale, FL	91-FLOG	2nd Th	7:00pm	Harris Computer Sys, 2101 W. Cypress Creek	305-748-7237
Mar 11	Tallahassee, FL	77-TCPMUG	2nd Tu	7:30pm	Episcopal Church of the Advent, 815 Piedmont Drive	904-878-4592
Mar 12	Jacksonville, FL	98-JOUG	2nd W	7:00pm	JEA Bldg, 233 W. Duval Street	904-633-4920
Mar 3	Athens, GA	81-CP/M Athens	1st M	7:00pm	Athens Microcomputer Center, W. Broad Street	404-353-2127
Mar 10	Atlanta, GA	93-TOGA	2nd M	7:00pm	Emory University, Chemistry Bldg. Ampitheater, Decatur Road	404-636-1480
Call	Hilo, HI	124-HIFOG	????		Shayne Enterprises, 180 Kinoole Street	808-935-8678
Feb 24	Davenport, IA	102-QCOG	4th M	7:00pm	CONFIRM	319-386-3484
Mar 12	Davenport, IA	102-QCOG	2nd W	7:00pm	CONFIRM	319-386-3484
Feb 11	Ames, IA	12-Midwest FOG	2nd Tu	7:00pm	(even months) IA State Univ. 200 Engineering Annex	515-270-3573
Mar 11	Des Moines, IA	12-Midwest FOG	2nd Tu	7:00pm	(odd months) Yonker's Computer Depot, 100 Merle Hay Plaza	515-270-3573
Mar 13	Sioux City, IA	38-SOG	2nd Th	7:30pm	Western Iowa Tech., Room 508	712-252-2182
Feb 23	River Grove, IL	80-CFOG	last Su	1:00pm	College Center Bldg, Triton College, 2000 Fifth Ave	312-654-0986
Mar 8	River Grove, IL	80-CFOG	2nd Sa	1:00pm	College Center Bldg, Triton College, 2000 Fifth Ave	312-654-0986
Call	Rockford, IL	84-GROG	????		CONFIRM	815-874-7146
Mar 6	W. Lafayette, IN	34-HOG	1st Th	7:00pm	CONFIRM	317-474-0253
Mar 10	Evansville, IN	46-E-OSBUG	2nd M	6:30pm	Oaklyn Branch Evansville Library, Oakhills & Lynch	812-479-5108
Mar 3	Bloomington, IN	87-IOU	1st M	7:30pm	Indiana Univ, Cyclotron Facility, 2401 M. B. Sampson Lane	812-334-3234
Feb 25	Wichita, KS	21-OPEK	4th Tu	7:30pm	St. Paul's Methodist Church, 1356 Broadway	316-832-0447
Mar 4	Hutchinson, KS	137-HUTCH	1st Tu	7:30	Hutchinson Public Library	316-663-7678
Mar 8	Louisville, KY	64-PCCL	2nd Sa	1:00pm	Univ. of Louisvile, Burhans Hall Rm 202, Shelbyville Road	502-451-0508
Feb 15	Lexington, KY	32-KOG	3rd Sa	12:00n	213 Funkhouser Building, University of Kentucky	606-269-1684
Mar 10	Baton Rouge, LA	103-FLOG	2nd M	7:00pm	Johnson Equipment Co., 4264 Perkins Road Co.	504-923-0888
Feb 25	Bedford, MA	122-BOG	last Tu	7:30pm	Mitre Corp., Route 62	617-484-1863
Mar 14	Lexington, MA	122-BOG	2nd F	7:30pm	Honeywell Electro Optical Div, Route 2A	617-484-1863
Call	Silver Spring, MD	96-ERC-OUG	????		CONFIRM	301-622-4400x5331
Feb 17	Portland, ME	136-SMOG	3rd M	7:00pm	Portland Jetport Conference Room	207-772-1616
Feb 17	Dearborn, MI	14-DeFOG	3rd M	7:30pm	Ford Tech Center Cafeteria, 1700 Rotunda Dr	313-626-6641
Feb 20	Ann Arbor, MI	37-TOGA²	3rd Th	7:00pm	Neuro Science Bldg. Univ. of MI, 1103 East Huron St	313-665-5753
Mar 11	Duluth, MN	118-DSO	2nd Tu	7:00pm	1440 90th Avenue West	218-626-3344
Mar 13	St. Paul, MN	111-TCOG	2nd Th	7:00pm	Univ. of MN,St. Paul Campus Rm B-45 Classrm Off Bldg	612-698-0225
Feb 25	St. Louis, MO	55-SLOG	4th Tu	7:00pm	Thornhill Library, 12863 Willowyck	314-991-4399
FEb 25	Kansas City, MO	97-MIZOG	Last Tu	7:00pm	TWA Bldg, 13th & Baltimore	913-686-2853
Mar 4	Jackson, MS	58-MCPM	1st Tu	7:00pm	R & D Center, Ridgewood Road	601-856-2509
Mar 10	Charlotte, NC	71-LOGIC	2nd M	7:30pm	Home Federal Savings and Loan, Carmel Road	704-377-1154
Feb 13	High Point, NC	107-TROGIC	2nd Th	7:30pm	(Even Months) High Point College, Science Building, Basement	919-766-5530
Mar 10	High Point, NC	107-TROGIC	2nd M	7:30pm	(Odd Months) High Point College, Science Building, Basement	919-766-5530
Feb 17	Raleigh, NC	8-ROCC	3rd M	7:30pm	CONFIRM — Dreyfus Aud., Research Triangle Inst.	919-782-9576
Feb 20	Fargo, ND	117-O/KUG	3rd Th	7:00pm	NDSU, Civil Engineering, Room 216	701-280-1700
Mar 11	Lincoln, NE	39-Lincoln LOG	2nd Tu	7:30pm	5530 O Street	402-761-3393
Feb 19	Woodbridge, NJ	138-JOG	3rd W	7:30pm	St. James School, Main Street	201-272-2073
Feb 27	Albuquerque, NM	127-AOG	last Th	7:00pm	CONFIRM	505-268-3606

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Date	City	A.M.O.	Day	Time	Meeting Address	Contact No.
Mar 11	Albuquerque, NM	127-AOG	2nd Tu	7:00pm	CONFIRM	505-268-3606
Feb 19	Las Vegas, NV	25-VOG	3rd W	7:00pm	CONFIRM	702-452-2544
Mar 11	New York, NY	135-NYOUG	2nd Tu	7:00pm	73 Franklin Street	212-594-5976
Mar 2	Liverpool, NY	82-SOUP	1st Su	2:00pm	8371 Red Wing Drive	315-622-9209
Mar 12	W. Hempstead, NY	88-LION	2nd W	7:30pm	Adelphi Univ Cont Ed Ctr, Room 110, Eagle Ave	516-481-0129
Mar 12	Ithaca, NY	101-FLOG	2nd W	7:30pm	Cornell Univ, G-94 Uris Hall	607-257-2030
Mar 11	Rochester, NY	132-FROG	2nd Tu	7:30pm	Monroe County Cooperative Ext. Center, 249 Highland Avenue	716-385-3456
Feb 19	Rye, NY	104-WOG	3rd W	7:15pm	Westchester Federal Savings Bank, 67 Purchase Street	914-725-1098
Mar 3	Oberlin, OH	9-^Ob^Os	1st M	7:30pm	Oberlin College, Rice Faculty Lounge, W. College Street	216-775-8706
Mar 10	Uniontown, OH	44-AKCAN	2nd M	6:30pm	13100 Cleveland Avenue NW	216-837-8926
Mar 12	Cleveland, OH	75-COG	2nd W	7:00pm	United Way, 3100 Euclid Avenue	216-888-2078
Feb 18	Cincinnati, OH	27-COG	3rd Tu	7:00pm	Central Trust Center 6th floor, 5th & Main Streets	513-232-4076
Mar 4	Dayton, OH	79-DOUG	1st Tu	7:30pm	St. Paul's Episcopal Church, 33 Dixon Drive	513-837-5651
Mar 12	Oklahoma City, OK	67-OKLOG	2nd W	7:30pm	Southwestern Bell, 111 Dean A McGee, Blue & Gold Rm	405-360-2141
Feb 27	Tulsa, OK	51-OUT	4th Th	8:00pm	Sheridan Library, 62 North Sheridan Road	918-587-3918
Call	Medford, OR	54-RVOG	????		CONFIRM	503-773-1222
Feb 26	Portland, OR	57-PMS	4th W	7:30pm	Bonneville Power Admin. Aud., 1002 NE Holladay St.	503-636-3802
Mar 2	Eugene, OR	128-LOCUG	1st Su	7:00pm	Farwest Federal Bldg., 96 E. Broadway	503-747-8242
Mar 8	Philadelphia, PA	121-PhROG	2nd Sa	9:30am	Merck, Sharp & Dome, Sumneytown Pike	215-648-5862
Feb 23	Pittsburgh, PA	50-TROG	4th Su	2:30pm	Mellon Science Building, Duquesne Univ.	412-456-3946
Feb 27	Lancaster, PA	74-LOG	last Th	7:30pm	3426 Horizon Drive,	717-285-4940
Feb 20	Lemoyne, PA	92-MIDPOG	3rd Th	7:30pm	One Stop Computer, 65 N. 5th St	717-243-7858
Feb 25	Greenville, SC	41-POGO	4th Tu	6:30pm	C. Douglas Wilson, 201 E. North Street	803-233-3434
Feb 19	Knoxville,TN	13-SMOG	3rd W	7:30pm	(even months) 11505 Kingston Pike	615-483-6857
Mar 19	Oak Ridge, TN	13-SMOG	3rd W	7:30pm	(odd months) ECS 136 Fairbanks	615-483-6857
Feb 20	Nashville, TN	119-MidTOG	3rd Th	7:00pm	Cumberland Museum, 800 ridley blvd.	615-244-5343
Mar 11	Memphis, TN	15-MOG	2nd Tu	7:15pm	Memphis State University, Math Building	901-522-1234
Feb 20	College Station, TX	43-AGGNOG	3rd Th	5:30pm	A & A Building, Texas A & M Univ. Room 503	409-845-7770
Feb 19	Austin, TX	7-AEIOU	3rd W	6:30pm	Old Quarry Library off Far West Blvd. 7051 Village Center	512-836-3010
Feb 21	Houston, TX	76-OUCH	3rd F	7:30pm	Univ. Houston, 101 Farish Hall, KIVA Rm. (Use lot 1341 off Cullen)	713-931-1096
Feb 8	Houston, TX	108-CLOG	2nd Sa	9:00am	Gilruth Rec. Center, Johnson Space Center	713-554-4304
Feb 23	Amarillo, TX	28-POG	4th Su	2:30pm	Downtown Branch Amarillo Public Library	806-355-7509
Mar 9	Amarillo, TX	28-POG	2nd Su	2:30pm	Downtown Branch Amarillo Public Library	806-355-7509
Mar 10	Lubbock, TX	134-LOG	2nd M	7:30pm	Texas Tech Univ. Law Bldg., 19th & Hartford Room 202	806-742-3920
Feb 19	Provo, UT	30-KAOS	3rd W	7:00pm	Wiltec Research Co. 488 South 500 West	801-225-8293
Feb 20	Salt Lake City, UT	105-SMOG	3rd Th	6:00pm	Sofshop, 2166 Highland Drive	801-268-2831
Feb 20	Richmond, VA	52-CVOG	3rd Th	7:00pm	Red Cross Bldg, 4th and Main	804-270-4936
Feb 15	Norfolk, VA	78-TOG	3rd Sa	9:00am	ECPI, 3661 East Virginia Beach Blvd.	804-495-1596
Feb 20	St. Croix, VI	70-StCOUG	3rd Th	6:30pm	St. Croix Country Day School Library	809-773-7551
Mar 3	Tacoma, WA	72-TOG	1st M	7:00pm	Parkland Library (Basement Mtg Rm) 404 Garfield So.	206-752-5582
Feb 19	Federal Way, WA	99-SKOG	3rd W	7:30pm	Highline Comm. Coll, Gold Rm — Bldg 4	206-643-3521
Feb 17	East Wenatchee, WA	10-WOG	3rd M	7:00pm	211 Ridgemont Drive	509-884-3279
Mar 13	Richland, WA	19-TROG	2nd Th	7:00pm	Richland Public Library, Swift & Northgate	509-967-2430
Mar 12	Spokane, WA	123-SMUG	2nd W	7:00pm	Komputer Korner, N. 2001 Monroe	509-482-7989
Mar 3	Milwaukee, WI	22-MilwOG	1st M	7:00pm	Math Bldg. Rm 495, Univ. of W. M.	414-255-0440
Mar 4	Madison, WI	129-MOO	1st Tu	7:00pm	Univ of WI., 1210 West Dayton Street, Rm B-214	414-887-2036
Feb 19	St. Albans, WV	59-Valley FOG	3rd W	6:30pm	Public Library, 6th Ave. and 4th Street	304-727-8716
Feb 26	Melbourne, Aust	131-VOUG	4th W	6:00pm	(even months) RMIT, Swanson St., Floor 9, Bldg. 12, Rm 908	03-459-8934
Mar 23	Ashburton, Aust	131-VOUG	4th Su	2:00am	(odd months) Ashburton Public Library, 152 High Street	03-459-8934
Mar 10	Edmonton, Alta	45-KOG	2nd M	7:30pm	Alberta Vocational College, 10215 - 108 Street	403-464-5088
Mar 10	Calgary, Alta	94-COUG	2nd M	7:30pm	616 Macleod Trail S, Seminar room 3,	403-239-5685
Mar 12	Vancouver, B.C.	17-VPCC	2nd W	7:30pm	Hastings Community Center, 3096 East Hastings	604-298-6990

Continued next page

Date	City	A.M.O.	Day	Time	Meeting Address	Contact No.
Mar 11	Victoria, B.C.	48-VIOG	2nd Tu	7:30pm	University of Victoria, Clearihue Bldg.	604-383-1512
Feb 24	Toronto, Ont	120-OUCT	last M	7:00pm	Parkdale Public Library, 1303 Queen St. W.	416-533-1531
Mar 11	London, Ont	95-LOG	2nd Tu	7:30pm	Univ. of W. Ont., Elborn College, Room 2130	519-438-7224 x267
Mar 6	Montreal, P.Q.	73-Microcozm	1st Th	6:30pm	Hillside Armoury, 3 Hillside Lane	514-932-4164
Call	Charlottenlund, Denmark	126-FORMICRO	????	5:00pm	CONFIRM	45-1-631760
Mar 10	Paris, France	110-OUF	2nd M	6:30pm	Centre Andre Malraux, 78 Bd Raspail	1-544-6216
Call	Hong Kong	116-HONG KOG	????		CONFIRM	852-5-8171714
Mar 11	Auckland, New Zealand	53-NZOG	2nd Tu	8:00pm	Auckland University, Human Sciences Building, Rm 336	275-4310
Mar 5	Wellington, New Zealand	109-CROG	1st W	7:30pm	Cafeteria of Trade Span (N Z), 300 Tranaki St.	0064-4-791-172
Mar 6	Dhahran, Saudi Arabia	33-DPoG	1st Th	10:00am	ARAMCO Mgmt Training Center	874-4798
Feb 18	Edenvale, So Africa	90-JOG	3rd Tu	6:30pm	Civic Centre	011-51-6304
Mar 8	Bangkok, Thailand	36-CP/M BUG	2nd Sa	1:00pm	Action Compters 5126 Saladaeng Road, Silom	391-0963 x 86
Feb 19	Kaiserslautern, W. Ger.	62-FROG	3rd W	7:00pm	Ramstein Air Base, Ramstein Rec. Center	49-6371-13117
Call	Schweinfurt, W. Ger.	112-SWOG	????		CONFIRM	09721-68064
Mar 3	Wiesbaden, W. Ger.	24-AGOG	1st M	7:00pm	Lindsey Air Station, Bld. A-24 Rm. 301	069-69-3218

FOG FONES

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FOG office	(415) 755-2000	Daly City, CA	voice only		10am - 5:30pm/M-F	*voice calls only please*
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FOG #2	(604) 941-2972	Vancouver, BC	10Mb	300/1200	24 hrs/seven days	
FOG #3	(415) 992-8542	Daly City, CA	47Mb	3/12/24	24 hrs/seven days	
FOG #4	(415) 591-6259	Belmont, CA	10Mb	3/12/24	24 hrs/seven days	technical notes
FOG #5	(415) 424-1482	Palo Alto, CA	10Mb	300/1200	24 hrs/seven days	Officers' Council
FOG #6 (Library)	(415) 755-8315	FOG Office	47Mb	3/12/24	24 hrs/seven days	Uploads/Hackers
FOG #10	(717) 657-8699	Harrisburg, PA	20Mb	3/12/24	24 hrs/seven days	
FOG #11 (KAY*FOG)	(415) 285-2687	San Francisco, CA	10Mb	300/1200	24 hrs/seven days	message system
FOG #12	(415) 851-7732	Woodside, CA	40Mb	300/1200	24 hrs/seven days	**new number**
FOG #13 (Constitutional Pathway Thirteen)	(405) 848-5317	Oklahoma City, OK	10Mb	300/1200	24 hrs/seven days	
FOG #14	(217) 344-4032	Urbana, IL	10Mb	300/1200	24 hrs/seven days	
FOG #18	(707) 557-4403	Vallejo, CA	46mb	300/1200	24 hrs/seven days	Long Range Planning Comm.
FOG #21	0908-614469	Milton Keynes, England	10Mb	300/multi	24 hrs/seven days	
FOG #22	(817) 662-2487	Waco, TX	10Mb	300	6pm - 6am/M-F; 24hrs/S-S	
FOG #23	(615) 292-0710	Nashville, TN	11Mb	300/1200	24hrs/seven days	Epson PX-8 SIG
FOG #24 (SoftStone)	(502) 241-4109	Louisville, KY	760K	300/1200	24hrs/seven days	
FOG #25	(319) 326-3904	Davenport, IA	360K	300/1200	24hrs/seven days	
FOG #26	(313) 792-7169	Mt. Clemens, MI	360K	300/1200	24hrs/seven days	
FOG #27	(404) 354-0662	Athens, GA	10Mb	300/1200	24hrs/seven days	
FOG #29	(617) 288-4667	Boston, MA	11Mb	300	5pm - 9am/M-F; 24hrs/S-S	
FOG #30	(714) 962-9999	Huntington Beach, CA	44Mb	300/1200	24hrs/seven days	
FOG #31	(415) 692-1406	Burlingame, CA	780K	300/1200	24hrs/seven days	
FOG #32 (FOG*Light)	(408) 287-7108	San Jose, CA	22Mb	300/1200	24hrs/seven days	2400 baud coming
FOG #33	(415) 655-1206	Oakland, CA	10Mb	300/1200	24hrs/seven days	
FOG #38	(415) 792-3481	Newark, CA	45Mb	3/12/24	24hrs/seven days	
FOG #39 (Electronic Locksmith)	(303) 973-2167	Englewood, CO	47Mb	3/12/24	24hrs/seven days	
FOG #40	(415) 323-4579	Menlo Park, CA	22Mb	300/1200	24hrs/seven days	2400 baud coming
FOG #41	(201) 467-2739	Elizabeth, NJ	360K	300/1200	24hrs/seven days	
FOG #48	(415) 365-2650	Redwood City, CA	23Mb	3/12/24	24hrs/seven days	
FOG #49	(201) 848-8217	Wyckoff, NJ	23Mb	300/1200	10pm - 8am/seven days	

cont. from page 34

program is now distributed with another utility called PAIR that checks for paired control characters, parentheses, and the like.

I do not know if the program has been changed in any significant way since Release 2.2. While a pair-checking program is handy, I find that Grammatik (Aspen Software's style-checking program . . . also recommended) does that for me as it checks for other stylistic crudities. Footnote is available for $99 from:

Pro/Tem Software
2363 Boulevard Circle, Suite 6
Walnut Creek, CA 94595

FTNOTE14.COM

FTNOTE14.COM, a public domain program contributed by Eric Meyer. It does almost everything that Footnote does, but has some different features.

FTNOTE14 has these special options:

1. You may, if you wish, start a new set of numbers on each page.
2. You may specify that footnotes are to be moved up to just below the text on each page.
3. You may change the footnote rule from a line of - to a line of =, ~, or @ or just an extra blank line.
4. You may specify two of the following characters: **A**, **N**, **Q**, **W**, **E**, **R**, or **Y**, to cause the footnotes to print in a different print mode using WordStar's user patch codes (e.g. **Q** and **W** starts the footnote with **^PQ** and ends it with **^PW**).
5. When several files are used to create one large paper, **.PN** and **.FN** commands may be used to start the page and footnote numbers in correct sequence in the later files.

Instead of @, FTNOTE14.COM uses **[##]** or **^T##^T** (or ## with any pair of delimiters you wish) to mark each footnote call. The footnote itself is marked similarly by any two delimiters, the default being a space and a period, e.g, (##.). You don't need to tell the program which delimiters you're using; it just leaves the two characters on either side of the ## in place.

FTNOTE14.COM does not have numbering style options like Footnote; however, the same result may be obtained by choice of delimiting characters. For instance, **^I##^T** could be used, then all the **^I**'s changed to **^I^T** by WordStar's find and replace option. This would result in the **MLA** footnote style with a tab (^I) and the number in superscript, thus achieving the same result as the configuration option in Footnote.

There is one important advantage of FTNOTE14.COM over Footnote. Footnote replaces your text file original with the footnoted version, while naming the original text file to .BAK, as described above (this happens twice, causing your original text file to be deleted). FTNOTE14.COM leaves the original text file intact and creates a special **.PRN** file, labeled with comments for final printing, which I find safer and more elegant. If there are errors in the final .PRN file, just erase it and start over with your original text file. Those with limited disk capacity might not find this as desirable.

FTNOTE14.COM also has two extra bells-and-whistles goodies. The first is a forward page-referencing feature. Example: ". . . thus FTNOTE14.COM will allow use of footnotes greater than 99 by using [###] instead of [##], as explained further on page ^PAAA^P."

Where the explanation of large footnote numbers appears, **^PA^P** would be sandwiched between a couple of words. When the text is being formatted by the program, the **^PA^P** is stripped out, and the number of the page where it was found will be found in place of **^PAAA^P**. Fifty-two positions (A-Z) may be specified.

The second goodie is "Figure Blocks". After a **.FB nn** command, the next **nn** lines of text will be treated as a figure, i.e., if there isn't enough room for them on the current page, they will be moved onto the next page. This is much the same as the WordStar **.CP** feature. However, **.FB** will also move up text to fill up the remainder of the page from which the figure was moved. Be careful though: the page-five buffer is limited to one page, and if you overload it, there are no error messages, and strange things may happen with your text.

Instead of two control characters to delimit the beginning of footnotes and **.pa** to mark the end, a simple ⮐ (carriage return) marks the beginning of the footnotes, and a right square bracket and a carriage return mark the end of the footnotes —]⮐.

This is much easier to deal with than all the control characters of Footnote, but it means FTNOTE14.COM effectively requires the footnotes to be entered at the end of a paragraph, while with Pro/Tem's Footnote, it is possible to enter the footnote in the middle of a paragraph. I found that entering the footnotes at the end of the paragraph to be a much neater and less confusing way than putting them in the middle of the paragraph, so I've not used this potential advantage of Footnote at all.

When there is not enough room on a page for both the footnote call and the footnote, FTNOTE14.COM will move the footnote to the next page, but Footnote and wsNOTE both are supposed to move the footnote AND the text containing the footnote call to the next page. Footnote has done this for me without fail, but there are some (unusual) circumstances when wsNOTE fails to do so. When faced with a situation where it's impossible to fit the text with a footnote call and the entire corresponding footnote on the same page, the programs behave differently.

FTNOTE14.COM and wsNOTE prefer to, if possible, fit the footnote's first line on the bottom of the page with the footnote call and continue the footnote on the next page; but Footnote will move the entire footnote to the next page and take along the text containing the footnote call. I'm not sure which is a bug and which is a feature . . . it depends on what you like. Because of different size footnotes and call locations, it's hard to tell which method will more often produce an aesthetically-appealing format.

There are two minor bugs that are easy to avoid if you know about them.

Number one: footnotes must be preceded by a HARD carriage return. If a soft carriage return precedes a group of footnotes, the program will not extract these footnotes. This will

⇨

probably only occur if you erase the hard carriage return before the footnotes leaving a soft carriage return. This is unlikely unless you're entering text in WordStar's double-space mode.

Bug number two: If the footnotes fall after a regular WordStar page break, TWO hard carriage returns must be entered before the footnotes.

wsNOTE

According to Eric Meyer, he began revising FTNOTE14.COM to allow footnote calls to follow their footnotes to the next page (mentioned above as a feature of Footnote), but he ended up rewriting the entire program.

He then decided to release it as an inexpensive commercial program. The cost is $25, and for those who previously sent in $10 to become registered users of the FTNOTE.COM series, it's only $15. It is somewhat quicker than the previous versions, and is smaller (12K vs. 17K for FTNOTE14.COM; Footnote is also 12K).

However, there are some differences. Footnotes are delimited by |**curly brackets**| rather than by a carriage return and a square bracket, and the forward-referencing feature is no longer available. The problem with the figure-block buffer is fixed, because an error message will appear if you overfill the figure-block buffer, and the need for two hard carriage returns after a page break is gone.

A separate configure utility is provided, instead of FTNOTE14.COM's patching guidelines, and on the whole the package is more user friendly without sacrificing flexibility (e.g., the configure program lets you adjust the size of several program buffers.)

One particularly nice feature is the option to configure the program for right-justified text or ragged-right text. For right-justified text for instance, **[##]** is replaced not by **[1]**, but by **[1]**<**space**>, so that four characters are replaced by another four characters instead of three, keeping the right margin neat. For ragged-right text, the space is not added. (Note: if you're using the right-justified mode, multiple calls at the end of a paragraph may appear like this: **[1]** ,**[2]** ,**[3]** and require some adjustment.)

One caution: the default for top margin in wsNOTE's **.PRN** files is four lines, and the usual top margin default in WordStar is three. This may cause confusion until you notice that the wsNOTE configure utility can easily set the top margin default to three to match WordStar.

A more serious shortcoming of wsNOTE compared with FTNOTE14.COM is that, although it is now easier to make page-bottom footnotes (in that the process can be done in a single step rather than the two steps required by FTNOTE14.COM and Footnote), there is no easy way to merge footnotes back into the initial file if you have extracted them to an endnote file for some reason. Since there's no need for an endnote file for creating a file with page-bottom footnotes, this probably won't be a common problem, but both the other programs provide this facility.

The only major complaint I have about wsNOTE is that I can still set up some situations where it will not keep footnote calls and footnotes on the same page, whereas Pro/Tem's Footnote seems always to keep the footnote calls and footnotes together. The wsNOTE program and documentation are available in O-1 format from:

Eric Meyer
Apteryx Software
427 N. Washington #4
Bloomington, IN 47401

Summary

All three programs are useful and have their strong and weak points. Despite the wide range in prices, all are strong and useful programs, though each has special features and bugs in roughly equivalent numbers. I've tried to provide enough information for you to determine which has the features you want and problems that you're willing to put up with. For some uses, one program might be far superior.

I've gone into so much detail about footnote programs (i.e., more than almost anyone wants to know) because footnotes are so important for academic writing.

I don't think that any of the fancy 16-bit word processing programs with integrated footnote functions are as sophisticated as 8-bit WordStar and one of these programs. Although I expect to buy a 16-bit system soon, I fully expect to have to transfer files to my Osborne to footnote them properly, at least for the next year or so.

The two major short-comings of all footnote programs I know are:

(1) You can't easily use a set of endnote references and refer to previous references out of order: e.g., at the first call for reference 72, have a set of reference calls such as: [2, 34, 72, 73, 74]; and:
(2) You can't neatly use references in the |name + year| form: e.g. (Conover, 1975).

Whoever can provide a neat and easy way to do this, whether with an outboard program for WordStar or as part of an integrated 16-bit program, will do a great service for those writing academic articles and probably make a bit of money as well.

All this commentary is based on my own limited experience with the programs and reflects my own idiosyncrasies. Please send your comments to the ***FOGHORN*** so we will all benefit from them.

• • • • • • •

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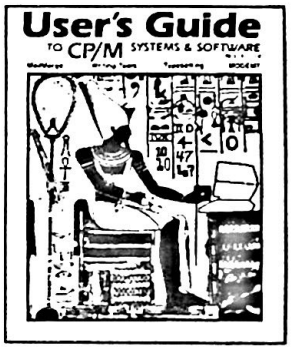

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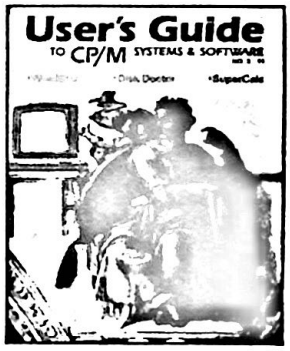

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SYSTEM NOTES

Function Key Definitions for WordStar

by Arto Kytohonka

SmartKey II and XtraKey are second only to WordStar as programs that I couldn't live and work without. "Your fingers are the 10 slowest parts in your computer," they say in an ad, and in a way they are right.

Here are some of my daily WordStar keys. And I hereby thank those contributors to the ***FOGHORN***, ***Portable Companion***, ***Profiles*** and ***Micro Cornucopia*** for the many tips and hints I've got during the last three years. (The ^ symbol stands for the control key.)

[Note: The . (period) at the beginning of each command is a SmartKey lead-in character which Arto has set up. All the commands following the .^n (where n can be any character) have been preprogrammed into SmartKey and will be executed by the .^n. So, when Arto types .^S in the first example, the entire set of commands following is executed. Jack]

Mark Blocks for Block Operations

(.^S) (^QF.^MB1^M^D^D^KB^QF.^M1^M^D^D^KK^QB)

Mark a Sentence

(.^D) (^K1^QS^KB^QD^F^QS^KK^QK)

Mark a Line

(.^E) (^K1^QF^N^MB1^M^B^K1^KB^B^KK^QB)

Mark a Paragraph

(.^X) (^K1^QF^N^N^MB1^M^B^K1^KB^QF^N^N^M1^M^B^KK^QB)

Maxi Moves

(.X) (^KWXWAP^M^KY^QS^KB..GET NEW LOC & (CR)^KK)(^KY^KR^R ^M^KJ^R^M)

My soft key definition table is up to 6.5 kilos!! (did I say I love function keys?), so I easily get into trouble when trying to move a block over 24 lines or so from one place to another in the file I work with.

But function key <.X> let's me have a huge amount of virtual memory.

I mark the block as normal but read it out to a separate file called XWAP, then put the cursor to the new location, and read the XWAP back, deleting it after that.

This works fast and easy on the Kaypro 10.

Scrapbook

(.Z) (^QB^N..READS TO /SCRAP^M^KB.PL41^M...T1 ^M...T2 ^QB ^B^F^F^F^D^D^D)(^QB^N^KB^KRB:/SCRAP^M^QB^N..PRESS ESC))
(^Y^Y^KWB:/SCRAP^MY^M^KY)

This function key let you kick your bright ideas to a separate file called /SCRAP:

- first make a /SCRAP file: **SAVE 0 /SCRAP** ↵
- manually or with another function key mark your idea as a block
- push the soft key dedicated to /SCRAP
- you get a comment line "..READS TO /SCRAP"
- define the card height for your file (.pl 41)
- with DocuMate, WordIndex or StarIndex put down a title and a subtitle for order, just as you please
- WordStar reads the block to /SCRAP and deletes the block

Changing the Word Order

(.,)	(^KB^F^KK^QK)	mark a word as a block
(./)	(^QK^F^KK)	go on including the next two
(.v)	(^KB^F^KK^F^KV^KH)	bounce over the next word
(.V)	(^KB^F^KK^F^F^KV^KH)	bounce over two words
(.b)	(^KB^F^KK^A^A^KV^KH)	jump back over one word
(.B)	(^KB^F^KK^A^A^A^KV^KH)	jump back over two words

Indenting

(.{)	(^QF-^M^M^F^OG^B)	find the "-" and indent
(.[)	(^ON A^M^OI 6^M^OI 8^M^OI 13^M^OT)	trim your tabs
(.})	(^F^OG^OG^B)	let the index mark be and indent
(.])	(^F^OG^OG^OG^B)	same as above but a step deeper

Tiny Tricks

(.1) (^M^N^T^PX^PBm^PHe m^PHe^PX^PB)

Make two black squares in the beginning of the sentence

(.2) (^B^QP)

The second best screen refresher when preparing an article! (I work with ^OH and ^OJ — and ^OT — turned off.)

(.3) (^C^QP)

Update the screen: the best of all the soft keys! Try it. WordStar doesn't push you down any more. No, use this soft key frequently. It cheers you up.

(.4) (-^A^QQ^B)

Puts a hyphen and continues formatting. This is a real help in languages like Finnish, Swedish, German, Italian, in which you've got to hyphenate a lot.

— The ^A just gives the WordStar a little time to follow the fast maneuvering: a mere "-^Q^Q^B" wouldn't work properly.

(.5) (^KB^K1(space)^K2^KK^S^KR)

The pseudo-window technique with WordStar — better than the real ones. It reads a file into your working file, marks it with place markers and as a block. Take a look, make your choice and delete the rest of it.

(.*) (^ON A^M ^OI006^M ^OI038^M ^QC^T^T^T^T^M^M..MONTH DATE^M^M^I^I^KB Villa Remedia at)(, 1984 ^OI044^M^M^M ^I^I ^IArto Kytohonka^M^I^I^ISF-16100 UUSIKYLA^M^I^I^I+ 358 (14) 631-136^M^KK^QB^KH)

Puts the date and address at the end of a letter.

* * * * * * * *

Creating EXECST.COM Files Automatically

by Jean-Christian Auclair

Here is a procedure to make EXECST.COM files either start up your Executive or be RENamed to automatically execute a series of CP/M+ commands. This can eliminate the need for SUBMIT.COM occupying space on your diskette.

First, using SETUP, program the following into system diskette Number 1:

Function Key #1: **B:makest**

Function Key #2: **PIP A:=B:EXECST.COM!ERA MAKEST.ASM! REN MAKEST.ASM=MAKEST.BAK!ERA EXECST.COM**

Next, system disk Number 1 must have a version of VDO on it along with MAKEST.ASM, RENAME, ERASE and PIP. Then:

1) Reset and boot with system disk Number 1. Log on to drive B and put the system disk Number 1 into it.
2) Put advanced utilities Number 3 diskette containing HEXCOM and RMAC into drive A.
3) Invoke VDO MAKEST.ASM and fill in the DB statements with whatever commands are required for your application. Save and Exit — ESC-X (so MAKEST.BAK file is created).
4) Log on to drive A.
5) Invoke function key 0: **^0**
6) Remove "advanced utilities" disk Number 3 from A and replace with the diskette requiring the EXECST.COM.
7) Invoke function key 1: **^1**

The EXECST.COM file will be created on the disk in drive A and can be RENamed to something else if not required to boot the computer.

* * * * * * *

Fast Graphs: A Submit File to Connect SuperCalc to Rembrandt!

by Jean-Christian Auclair

Would you like to graph SuperCalc data with Rembrandt — automatically bypassing the initial Rembrandt menus? Would you care for BOARD overlays at blinding speeds?

Here's how to do it.

Let's assume that you want to graph three sets of x and y data in a SuperCalc file and then overlay them. First, within your SuperCalc file, arrange your data so that each set is in two rows (x on top, y on the bottom) or two columns (x on the left, y on the right).

Then /(O)utput the x and y (V)alues to (D)isk to obtain a ***.PRN**. Repeat this for the other two sets of data.

Let's say you have named your .PRN files as xy1.prn to xy3.prn. If you invoke the submit file provided below as follows:

A> submit xyovr xy1.prn xy1.cht xy2.prn xy2.cht xy3.prn xy3.cht

and after execution you will obtain three Rembrandt chart files (designated here by the extension .CHT) created from their respective .PRN files (note the order on the command line). The overlay drawing created by BOARD also will appear on your screen ready to be edited or saved.

In the command line above you can designate your filenames as you wish as they are passed to SUBMIT as the arguments $1 to $6, (see below and the Executive ***Reference Guide*** for further information).

In the SUBMIT file described below I've added explanations with single arrow <--- designations, non-essential input with a double arrow <<--- and essential input with a triple <<<--- arrow. When entering the file into your computer, you should exclude the arrows and all characters to the right of them.

Basically, the submit file consists of:

1) The called programs;
2) The input to these programs as you would enter them from the keyboard but preceded by the input redirection operator <; and
3) CP/M conventions for the special keys for cursor movement and the ESC key.

Contents of the submit file XYOVR.SUB:

```
XY                (---- Calls XY.COM (in REMBRANDT)
(                 (---- A simple ↵
(Y                (---- Beginning of the creation of XY1.CHT
(N
(Y
(A:$1             (---- $1:submit parameter designates xy1.prn
(Y
(SN
(10             (((---- X max: here 10
(0              (((---- X min: here 0
(100            (((---- Y max: here 100
(0              (((---- Y min: here 0
(TTitle...       ((---- Title of graph if necessary
(Sub-title...    ((---- Subtitle if necessary
(LUnits...       ((---- x axis units (don't touch the ''L'')
(Units...        ((---- y axis units
(C                (---- Beginning of symbol (C)hange to ''+''..
(                       GOOD FOR 10 DATA POINTS OR LESS...
(+                      SHOULD BE INCREASED IN LENGTH FOR MORE
(C
(
(+
(C
(
(+
(C
(
(+
(C
(
```

```
(+
(C
(
(+
(C
(
(+
(C
(
(+
(C
(
(+
(C
(
(+                    (---- End of symbol change to ''+''
(V^[^[^J^J            (---- ^[=ESC et ^J= Cursor arrow ''down''
(a:$2                 (---- Creation of XY1.CHT
(^K^K                 (---- ^K= Cursor arrow ''up''
(Y                    (---- Beginning of the creation of XY2.CHT
(N
(Y
(a:$3
(Y
(SN
```

At this point, note that the "beginning of the creation of XY2.CHT" follows a pattern identical to the "beginning of the creation of XY1.CHT" above. There are only two differences:

1) **$3** and **$4** substitute for **$1** and **$2** above; and
2) The symbol + will change to **o.** to modify the graphic symbol.

Similarly creation of XY3.CHT is identical: **$5** and **$6** substituting for **$3** and **$4** and the **o** becoming the period (.).

If you have followed along correctly, the end of XY3.CHT should look as follows:

```
(C
(
(.                    (---- Changes last data point to ''.''
(V^[^[^J^J
(a:$6                 (---- End of the creation of XY3.CHT
(^J^J^J^J             (---- ^J=cursor arrow down 4 times exit to A)
board                 (---- Calls BOARD.COM to begin overlay
(^J
($2
(N
(
($4
(Y
(
($6
(Y
(^K
```

The last part invokes BOARD.COM and overlays the three ***.CHT** files corresponding to the parameters :$2,$4 and $6 in the submit command line above. Note that the same submit file could be used to treat data from a BASIC program by simply answering **N** to the `SuperCalc format ?` question in BOARD.

Finally, the program will also work with fewer than 10 data points since the (C)hange operation is cyclic. This program runs terrifically on the Executive. Enjoy!

• • • • • • •

Making CP/M Think It Has Some MS-DOS Capabilities

by Keith Conover

Introduction

If you've worked with MS-DOS, you may have found some features that CP/M doesn't have. One of these is the ability to automatically run a submit-type file called AUTOEXEC.BAT on booting. This is similar to CP/M's ability to run a program called AUTOST.COM, except that MS-DOS's AUTOEXEC file is like a CP/M submit batch file so that you may include names of several .COM files to be run as well as other system commands.

I have an 800K add-on disk drive for my Osborne, and in order to make it work, I have to run a special program (800.COM) after booting. I figured out a simple way to do this (the explanation is below) but later I decided that I also wanted to run XCCP.COM, a public domain console command processor (CCP) replacement on boot up as well. In the search for a way to autoboot both .COM files, I found several alternatives, including a way to simulate MS-DOS's AUTOEXEC.BAT utility.

First, let me tell you about the "autoboot filename" in your CP/M system. CP/M systems can be patched with the name of a file to be run immediately on booting. For Osbornes, it is set by the Osborne Computer Corp. to be AUTOST.COM. Therefore, every time you cold boot, CP/M runs whatever file it finds that's named AUTOST.COM. This is a setup for a quick and sleazy trick: I renamed my boot-up file from 800.COM to AUTOST.COM and every time I boot up, CP/M automatically runs AUTOST.COM (which WE really know is 800.COM). Very simple.

If renaming your boot-up .COM file to AUTOST.COM somehow seems like cheating, there is a more elegant alternative. However it requires a bit more work unless you have a copy of SUPERZAP.COM (SUPERZAP (SPZ) is available in the FOG Library on FOG/CPM.020). If you do, then it's almost trivial.

(Sidetrack: if you don't have SUPERZAP.COM yet, I recommend you get it! It's probably the most useful utility I know of, next to NSWEEP. Both CP/M and MS-DOS versions are available.)

Boot up SUPERZAP, put your boot disk in Drive A and select:

5: Absolute Sector Access

Select **1: Access Current Disk** (this will start you at absolute sector 00, which is the beginning of your CP/M system tracks).

Select **3: Goto**, then select **4: Go ASCII** and enter **AUTOST**

(don't enter the .COM extension, as it doesn't appear in the "autoboot filename;" CP/M assumes an extension of .COM).

When you've got the sector with AUTOST showing on the screen, select **5: Chg Asc** and over "AUTOST" type the name of the .COM file you want to substitute. Type over any remaining characters of the AUTOST with spaces; at least one space (or 00h) must come after the filename.

(CAUTION: your filename must be six characters or less! More may destroy part of your special function key definitions.)

Type **^W** (control W) to update the sector, exit SUPERZAP, and you're done!

Easy, wasn't it?

Back at the beginning, I said you could easily set up an AUTOEXEC.BAT-type file for your Osborne (yes, yes, I'm getting to it). I just wanted to explain some simpler kludges first.

Here's how to set up your AUTOEXEC file boot system. All you have to do is take SUBMIT.COM from your CP/M utility diskette, or you can use the faster and more flexible SUPERSUB.COM, or EX14.COM (both from the public domain); put it on your boot diskette and rename it to SUB.COM.

(I think autostarting will work much faster if EX14.COM is used, though I haven't tried it yet. EX14.COM reportedly builds the .SUB file in memory as compared with SUPERSUB's disk file, and reading and writing memory files is much faster than using disk files. Also using EX14.COM would allow you to put a tab over your boot diskette's write-protect notch; if you write-protect the boot diskette when using SUPERSUB, it will crash when it is unable to write the .SUB file to the diskette.)

Use the WordStar Non-Document mode to type your commands into a file named A.SUB. Type them in just the way you would at the A> prompt. (The reason you call it **A** rather than AUTOEXEC is that there isn't enough room in your CP/M system for a command plus tail longer than six characters, as described above, e.g. SUBMIT AUTOEXEC or SUB A).

Remember to type in carriage returns where appropriate, including one after the last command in the file. Place the cursor at the end of the file before saving to avoid setting any of WordStar's 8th-bit flags in the middle of your file (that's also why you're using WordStar's **N** edit mode rather than the **D** mode, so there aren't any 8th-bit-marked soft hyphens or soft carriage returns to confuse the computer when running the file.)

My file is:

```
800↵
XCCP↵   where ↵'s are carriage returns.
```

You could get real fancy I suppose:

```
800↵
XCCP↵
XSUB↵
FKEYS↵
\↵
PS↵
^↵
B:↵
XDIR↵
A:WS↵
```

On booting up, you will see the A> prompt appear, and your Ozzie will automatically type and execute all the commands you've entered in A.SUB! It's slow compared to an AUTOST program or the MS-DOS AUTOEXEC.BAT system, but it works.

What if you just want an autostart program, but one that doesn't make you wait for the Osborne logo each time you boot? Well, see the article in the March, 1983 ***FOGHORN***, (p. 18); or, copy the following assembly language routine, put in your favorite filename at the end (WS for WordStar, or whatever), assemble and load, and watch it go! (Well, it's a little bit faster.)

Want to have faster autostarting AND autoboot a couple of different files? Willing to do something really kludgy? Rename your SUPERSUB.COM (sorry, this won't work with SUBMIT.COM or /.COM) to S.COM. Rename the two files you want to run on autostart to A.COM and B.COM. Use SUPERZAP, as described above, to replace CP/M's AUTOST with S^0/A;B. Like I said, it's not elegant, but it works.

DISCLAIMER: If it works, I'll take credit; if it doesn't, complain to someone else. If you destroy your only CP/M master diskette trying to do any of the above, you deserve what you get . . . and FOG automatically inherits your computer when you commit suicide. (That's not really any worse than those stupid software agreements, is it?)

Enjoy.

```
; AUTOST.ASM
; Provides MS-DOS-like batch file initiation:
; Place a list of CP/M instructions on the diskette in a file
; named ''AUTOEXEC.SUB'' (remember to place a ↵ after each
; command or .COM file to be run) and include CP/M's SUBMIT.COM
; or SUPERSUB.COM (public domain submit utility) on the dis-
; kette, but renamed to SUB.COM.
; If you just want a faster autostart than the Osborne version,
; change ''filename:'' (near the end of this routine) from ''SUB
; AUTOEXEC'' to the name of the file you wish to autoboot (e.g.
; WS for WordStar); change the ''length of command'' number,
; too, including at least one ''.00'' after the command name.
; You may wish to customize ''endmes:'' as well.
; Designed for the Osborne 1, but will probably work on any CP/M
; 2.2 computer.

; August 31, 1985: Keith Conover, M.D., with thanks to Thom
; Hogan's AUTOCPM.ASM found in the Osborne 1 User's Guide,
; p. 247.

; Copyright (C) 1985 by Keith Conover, M.D.
; Anyone can use this program in any way he or she wishes pro-
; vided it is not resold for profit.

; Equates
clear       equ     26      ;clear screen
pbuff       equ     9       ;BDOS print buffer
bdos        equ     5       ;location of BDOS address
cr          equ     0dh     ;carriage return
lf          equ     0ah     ;line feed
```

```
; Start Of Program
        org     0100h

        hld     01          ;get warm start address
        mvi     l,00        ;zero L register
        mov     a,h         ;get page boundary
        sui     16h         ; -16 = CCP address
        mov     h,a         ;set HL reg. to CCP address
        shld    ccp         ;store CCP address

start:  lxi     d,endmes            ;point to load message
        call    print
        lxi     d,filename          ;point to filename
        lxi     b,14                ;set counter to 14
        ;NOTE: need to set counter higher if using a longer
        ;''tail''

move:   lhld    ccp         ;load CCP address
        mvi     l,07        ;bias 7 bytes to filename buffer
        call    again       ;move filename to CCP buffer
        lhld    ccp
        mvi     l,88h       ;offset to counter
        mvi     a,08h       ;lsb of CCP pointer
        mov     m,a         ;put it in place
        lhld    ccp
        mvi     l,89h       ;offset to counter
        mov     a,h         ;put it in place
        mov     m,a         ;counter restored
        lhld    ccp
        pchl                ;cold boot

again:  ldax    d           ;get byte to move
        mov     m,a         ;move it
        inx     h           ;increment location
        inx     d           ;increment location
        dcx     b           ;decrement counter
        mov     a,b         ;get counter in a
        ora     c           ;test for end of byte string
        jnz     again       ;not done; go back for another byte
        ret                 ;done.

print:  mvi     c,pbuff     ;get proper call in c
        jmp     bdos        ;do it

; Storage Area
ccp:      ds   2        ;save 2 bytes for CCP location storage
filename: db   13,'SUB AUTOEXEC',0,0
;              /                \
;    length   /     command       must be followed by at least
; of command        string        one zero to work properly

; NOTE: If the command string is longer than 12 characters, you
; must change lxi b,10 just before MOVE: to lxi b, length+2

endmes: db   clear,cr,lf,lf,lf,9,'Loading CP/M AUTOEXEC.SUB'
        db   cr,lf,lf,'$'

end
```

* * * * * * *

I Crashed Three Disks and Lived to Walk Away!

by Peter Dodwell

I wish I could boast that I survived by simple prevention (keeping a backup disk of EVERYTHING). But no: like many others, I also became complacent from the reliability of "the system", and was only making backup disks of SOME of my data files.

Sound familiar?

I am now suitably chastened about backups!

I always knew there were public domain programs "out there" for salvaging disks, but no-one ever seemed to have used them when I asked. And, of course, my Oz was behaving so well that I saw no urgency. I DID happen to have a version of DUU ver. 7.7 (in .ASM form), so reckoned I could try it if worst came to worst.

It did.

When disaster struck, my Oz decided to zap the directories of three disks. All were data disks without backups! How did I know the directories were zapped? I didn't. The evidence was just that when I asked Oz to access the disk, e.g., to display a directory, it told me there was a BDOS error on that disk. Naturally, I tried the other disk drive and got the same answer for the crashed disk each time.

I looked up the documentation on my DUV77, and decided to try it. *[An updated version, DUV88, is in the FOG Library on FOG/CPM.020.]* So first, I had to learn how to compile DUV77.ASM (which, incidentally, was masquerading as DISKNURSE.ASM, from SUDDEN software via CPMUG). I'm pleased to say that the instructions in the grey Osborne manual (using an AUTOST.ASM file as an example) worked like a charm. So I won't detail this process further. But do try it sometime on a library .ASM file. It may dispel some of your inherent fears of these strange codes.

Unfortunately, the resulting DU77.COM file (though working exactly as its documentation described) was NOT what I needed. It did permit me to skip around the disk, viewing sectors, groups, etc.

It confirmed that my directories were full of garbage. But there was no easy way of saving the good stuff onto another disk (unless of course I was a competent user of DDT, which, you will be cheered to know, I am not). It also used slightly different commands from those described in the articles in the ***FOGHORN***.

I advise the tyro to ignore DUV77, unless you want to dabble with the .ASM file.

Now I went to ***FOGHORN*** articles. The following are recommended:

DU2 — Disaster Insurance (Vol. III, No. 10; July, 1984)
Using DU (Vol. IV, No. 4; January, 1985)
Reclaiming Files From Scratched Disks With DU (Vol. IV, No. 6; March, 1985).

Not all of these articles are clear as to which version they describe. But I concluded that the most recent one useful for

Osborne 1 was DU2V18.COM. It is on the library disk FOG/UTL.044.

ALL of the versions I have seen have very sparse documentation clearly intended for the high priesthood. I held my breath, decided I had nothing to lose, said a brief prayer to St. Adam, and went on a very brief foray.

What follows is the BARE MINIMUM needed to salvage useful bits from a disk with a crashed directory. I am sure DU2 will do much more, but this will get you by:

1. Copy DU2.COM onto an otherwise empty, SYSGENed disk. Lovers of tidiness will use MAKAUT02.COM or similar to make DU2 run from cold boot. At the least, rename the program to a briefer name, such as DU2. From the A> prompt issue the command:

DU2↵

2. Take your crashed disk and put a write-protect sticky tab over its notch. This is important to avoid further corruption of your disk! Insert the disk in Drive B.

3. You can now call up a directory of commands using the **?**. Don't worry about the mass of detail, but do print out the documentation file of this for reference. Listed below are all the commands you need.

Lx LOG to Drive X. Use this to log on to the crashed disk.

M MAP the disk (from the directory, which of course is not going to work; but try it, just to be sure). Try it on a GOOD disk first to see what a proper directory looks like. A bad directory is met by a prolonged drive noise, repeated anguished messages from Oz, and finally a flurry of garbage (or partial sense) on the screen. Wait patiently, but don't bother a second time.

Gnn GO to this group number (each group being 1K of data for DD, or 2K for SD).

Vnn VIEW a few sectors on the screen, starting from Gnn. Useful values for nn lie between 5 and 10 to fit the screen.

@ REPEAT the last instruction. This allows you to scan through a file until you reach +EOF+, where you will come to halt until you use Gnn again.

<Gnn Saves this group in order in a "queue" in RAM for later writing to disk. If you're lucky, you may produce a queue which amounts to all of a file, from start to finish. More likely is that you will find bits of a file which you will save under suitable names and piece together later under WordStar.

QSA:filename.ext Error In Documentation. SAVES queue as any DISK FILE you care to name. But BEWARE: my documentation said the **A** allowed you to specify which drive to save to. In fact, DU2 tried to save to the logged drive (which could be DISASTROUS). Hence the write-protect tab. Therefore, the complete sequence should be:

Save Routine

LA	— log to A
QSfilename.ext	— save
QZ	— clear (Zero) queue
LB	— log to B
QZ	— ZEROES (clears) the queue. You are now ready to collect the next file.
X↵	— eXit from DU2

Those are all you need, roughly in their most-used order.

4. Using the above commands, you must now search your disk from top to bottom. This would be helped by a recent printout of your disk directory (bound to be out-of-date), to give you hints about useful filenames.
You do NOT need to really understand about sectors, tracks, etc. The only "geography" you need to visualize is GROUPS. You also need to be able to count in Hex numbers, i.e., to count to base 16. The groups therefore are numbered:

00,01,02,03,04,05,06,07,08,09,0a,0b,0c,0d,0f
10,11,12,13, . . . etc., ending at B8 for Oz double density.

5. They start from groups 00 and 01, where the DIRECTORY resides. Avoid these groups after your first try (via the MAP command; remember?): DU2 will try unsuccessfully and tediously to read this eight times, before quitting. Each time, it displays this disgusted message:

+++READ FAILED, sector may be invalid+++

6. As you repeat the Vnn command to view a file, note how the group number (displayed bottom left after each screenful) occasionally jumps one higher.

7. On each such occasion, decide if you want to save that group in the queue (using the <Gnn command). Save more than you need, rather than less. It can be edited if necessary.

8. Finally, when you either get to +EOF+ (End Of File), or run into garbage, use the SAVE ROUTINE above.

Good hunting.

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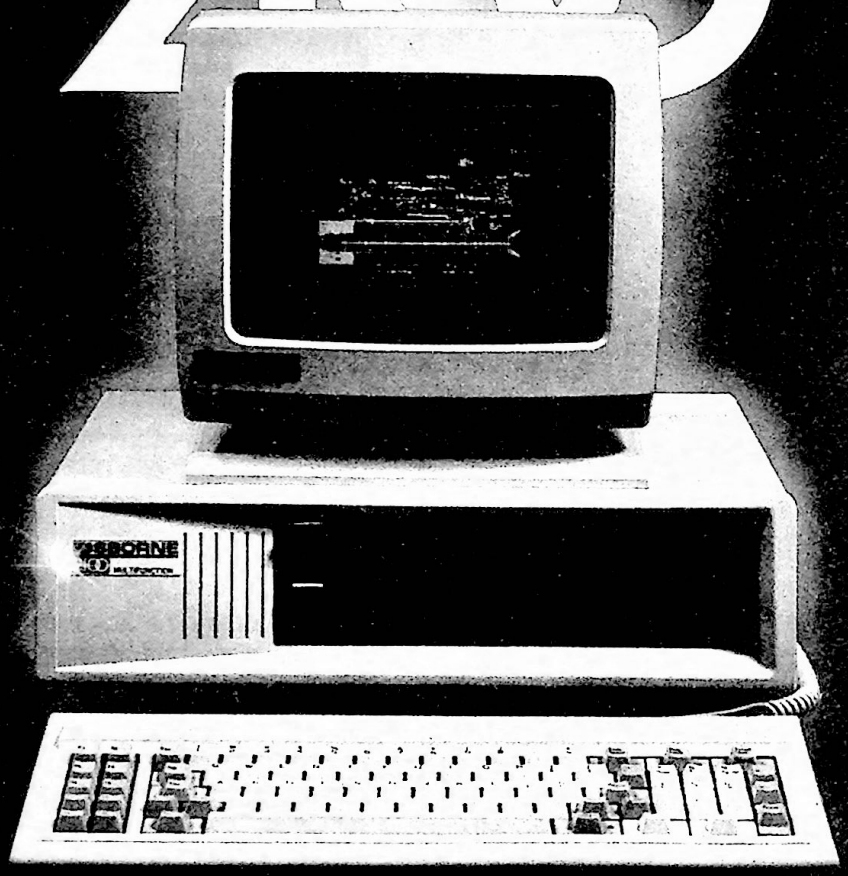

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WordStar, Etc.

by Alan Chattaway

Proportional Spacing with Justified Right Margin from WordStar?

I recently wrote a program that prints text proportionally spaced and right justified. The text files can be created with WordStar or any other editor that produces ASCII files and allows control characters to be placed in the file. I have submitted it to the FOG library under the name PSRJ, *[under the new library disk system, it's on FOG/CPM.026. Jack]* including well commented BASIC source code designed for easy adaptation to most daisy wheel printers, even obscure brands.

WordStar Output Files and Control Characters

In writing this program I found out some things about WordStar. If your "printed" output goes to a disk file instead of to your printer, control characters are not all handled the same way. Firstly, there are five control characters you cannot use as "themselves" because they have special meanings in ASCII, which WordStar respects. (^ means control.)

- **^I** is the Tab character used for "fixed tabbing"
- **^J** is the Line Feed
- **^L** is the Form Feed
- **^M** is the Carriage Return
- **^Z** is the End-Of-File Marker (in CP/M, not ASCII)

Secondly, **^K** and **^U** are not sent on to the output file. Thirdly, **^O** is translated to a space and soft hyphens become hard hyphens. The other control characters are passed on intact.

FLASHPRINT with Rembrandt

A friend discovered that you can load the printer driver for Rembrandt, then FLASHPRINT!!, which in turn loads WordStar. This allows you to mix FLASHPRINT!! special effects and Rembrandt graphics in the same document, which could be quite useful. This was tried on a single density O-1 with the 1.3 ROM and no other memory-eaters in RAM such as print spoolers, RAM-disk or hard disk drivers, etc.

Boxes, Frames and Organization Charts with FLASHPRINT!!

At work I have a DEC LA-50 printer on my desk and access to an LA-100 if required. Both of these include 11 characters called the "DEC line drawing character set" including:

* All four corners of a rectangular box;
* Vertical and horizontal lines, and one crossing the other;
* All four tees: horizontal line with tee going up or down, vertical line with tee going left or right.

Using these characters you can draw any system of interconnected rectangular boxes and straight lines with square corners. Obviously they can be used just to frame a page or to draw quite complex organizational charts. However, software to access these characters was not so forthcoming. It takes seven bytes sent to the printer to switch modes, print one special character and switch back.

How to set it up in a hurry?

Then I remembered FLASHPRINT!! which I reviewed a while ago. I quickly typed up a translation table to change 11 little-used characters such as the tilde, curly braces and opening single quote into the 11 line-drawing characters. In about 20 minutes I had my first test "drawing" rolling off the printer.

After some quick tests, I tried drawing a complete industrial electrical diagram, and was reasonably pleased with the result.

Having to type the "wrong" characters to get the desired result proved tedious and error-prone, but on the other hand without FLASHPRINT!! I couldn't have written any other software (in the time I could spare from regular work) that would let me try my idea to see if it was feasible.

Now that I've proved it is, I may go ahead and invest the time to write a custom graphics editor for that printer.

Using FLASHPRINT!!, the same technique could be applied to almost ANY printer. For those with downloadable character sets (Epson, etc.) you could download the redefinition of those 11 characters at the start before printing.

For those with graphics modes, you can use FLASHPRINT!! to translate those 11 characters at print time into the desired dot patterns.

And for daisy wheel printers that support incremental motion, you could even use FLASHPRINT!! to translate the 11 characters into combinations of superscripted underscores and vertical lines that would reproduce the line-drawing character set on the printer.

Memory-mapped WordStar 3.3 and Screen Resetting

When you patch WordStar 3.3 to be memory-mapped on the Osborne 1, and run a program from the Opening Menu that causes the screen to scroll up (like NSWEEP), WordStar never recovers its proper vertical position relative to the screen. You could hold ^ and jiggle the up and down arrows to fix it by hand, but that was the hard way.

The article *Clear Screen with ZCPR* (July 1985 ***FOGHORN*** p. 44) shows you how to create a short program that clears the screen. I placed this program on my WordStar disk, and if, after running NSWEEP from the Opening Menu, the vertical screen position is not right, I immediately press **R** and run the screen-clearing program. This solves the whole problem.

Turn Off Your Internal Monitor for Under 1 Cent

If your O-1 has become a virtual "fixture" with an external monitor, and you hardly ever use the internal monitor, you can extend its life and cut down heat by turning it off.

You can buy or make a special version of the "shorting plug" for this purpose (that's the rectangular black plug that says "DO NOT REMOVE WHILE POWER IS ON" next to the Reset button), but plugs cost money.

A cheaper way is to just prevent the plug from connecting to the power contacts.

With the O-1 unplugged from the wall, remove that plug and look inside. The board-edge connector has contacts arranged in two rows, one on top and one on the bottom of the board. The contacts that carry power to the internal monitor are numbers 13 and 14, or, counting from the left, the fourth pair of

upper and lower contacts. Simply place a thin strip of paper in such a position as to prevent the shorting plug touching one or both of these contacts when you plug it back in.

Power up and behold! No image on the internal monitor, but the external one works as well as ever.

The trick is in keeping your piece of paper in place while pushing in the plug. You might try using a very LONG strip tucked into the hollow of the plug first, grasped firmly while pushing the plug in a straight line. If you later remove the plug the paper will probably be lost, but you can probably afford another piece!

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"Trivulations" on Garbage

by Carl Tenning

Have you ever been plagued by the MBASIC garbage collection routine? It's supposed to happen when memory space gets filled with unused strings. When it happens, everything seems to go dead. Even the ^C (control C) doesn't seem to work. Well, I've never had it happen to me and I was puzzled by magazine articles that told how terrible it was and how to avoid it. One company even sells a program called TRASHMAN that's supposed to prevent it, I guess.

Curiosity finally got to me so I had to write a program that would experience the dreaded garbage collection routine. Here it is:

```
10 PRINT CHR$(26)
20 WIDTH 52
30 PRINT TAB(12);''GARBAGE COLLECTION DEMO''
40 PRINT:PRINT
50 OPTION BASE 1
60 DIM A$(1024)
70 DEFINT I,N,J,K
80 J=65
90 PRINT ''Assign values to 1024 strings:''
100 PRINT
110 FOR I=1 TO 1024
120 G$=''''
130 FOR N=1 TO 12
140 K=25*RND
150 G$=G$+CHR$(J+K)
160 NEXT N
170 A$(I)=G$
180 PRINT I;
190 NEXT I
200 PRINT:PRINT
210 PRINT ''1024 strings of 12 characters each''
220 PRINT ''have been assigned.''
```

String G$ is continually assigned new values. The values are saved in array A$(I). In the process of building up random strings in G$, G$ is modified 13 times. Each time it gets assigned a new value, its previous contents become garbage, i.e., the old contents remain somewhere in memory, but no longer belong to any variable.

To see how the program is progressing, the value of the loop "I" is printed each loop. Each Loop uses up about 90 bytes of memory. As A$(I) becomes filled, less and less memory space is available for G$ development and the program becomes interrupted more frequently.

The interruptions can be seen when the loop number stops printing. Try it if you've never experienced the thrill of garbage collection.

More on Garbage Collecting
by John Steding

On garbage collections (Carl Tenning), I have run into the problem several times. It can be avoided by imaginative programming, but usually you can just accept the longer time for the program to run, because garbage collections take about 1:20 minutes and then the program will continue.

Sometimes, after several garbage collections Ozzy will run out of string space and tell you so. Reprogramming is the only alternative then. I have a program where I call up about 650 items out of file, sort them, and print in five columns. This takes 20 minutes for all the gc interruptions.

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Memory-mapped Video for WordStar on the O-1

by David Arkush

Memory-mapped video (which means that the screen is mapped directly from a certain section in the computer's memory) offers two significant advantages in WordStar. First, there are no more of those annoying ghost images that were liable to appear on the screen, say after quickly inserting a bunch of RETURNs. Second, scrolling with ^C or ^R (control C, control R) is instantaneous.

However, there are two minor disadvantages. I cannot get a blinking cursor to work with it and instead of having a half-intensity display, underlining must be used to mark (^KB^KK) blocks and such (though this last can be an advantage sometimes, e.g., when doing a block move involving spaces).

Memory-mapped video is easy to implement in WordStar if the display width is set to 128 columns, and was part of the old WSFAST routine that way. But that puts the WordStar flags (< etc.) way out in column 128, off the screen.

This was bearable with 52 columns as they were already off the screen, but it was too much to give up when 80 columns came. I was never able to figure out how to get it to work while keeping the flags on screen.

The key discovery is the last four changes below. Considerable credit for these is due to Mike Schwab of the Denver Osborne Group and his long WSPATCH2 routine for WS 2.26 on FOG/APP.018. *[WSPATCH3 is on FOG/APP.037. Ed]* Working from that, it was not hard to find the equivalent locations in WS 3.3.

To make the necessary changes to your WordStar program (WS.COM), INSTALL or WINSTALL will not work as the last four addresses are too high. You may use DDT if you like and know how, but the most convenient way to alter any non-text file is always EDFILE.COM on FOG/UTL.042.

EDFILE, for those who have not yet had the pleasure, is a full-screen editor for .COM files, and is fast and easy to use.

Type **EDFILE WS.COM**, then **A** and an **address** followed by **H** to get to the sector that has the addresses you want to change.

^E puts you in edit mode; use arrow keys move around; type over what you want to change, and **^W** to save that sector.

H and **M** give help menus (there's a lot more it can do); **Q** to quit.

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For WordStar Version 3.30

```
address  old        change to   comments
[233     ?          (58?)       ;WID: display width - you may set
                                ;  for whatever you like; I use
                                ;  58h since Osborne's ''80 col-
                                ;  umns'' is really 88]
290      00         01          ;MEMAPV: use memory-mapped
                                ;  video
291      00         00          ;MEMADR: F000h is the address in
292      00         F0          ;  high memory of the screen
                                ;  display
293      00         80          ;HIBIV: use underlining for
                                ;  highlighting
294      00         80          ;HIBCUR: underlining for cursor
295      00         FF          ;CRBLIV: blink cursor within
                                ;  lighting

2074-    3A 33 02   3E 80 00    ;places where WordStar
2098-    2A 33 02   2E 80 00    ;  needs to be changed
2355-    3A 33 02   3E 80 00    ;  to use 128 (80h)
3DBF-    2A 32 02   21 18 80    ;  instead of WID
```

For WordStar Version 2.26

```
[249     ?          (58?)       ;WID: ]

2B0      00         01          ;MEMAPV:
2B1      00         00          ;MEMADR:
2B2      00         F0
2B3      00         80          ;HIBIV:
2B4      00         80          ;HIBCUR:
2B5      00         FF          ;CRBLIV:

202B-    3A 49 02   3E 80 00
204F-    2A 49 02   2E 80 00
234C-    3A 49 02   3E 80 00
2E74-    2A 48 02   21 18 80
```

A final problem is that if you enter WordStar after running another program you may find vertical placement of the screen display is off. This may be corrected with the control up or down arrows, but it is more convenient to patch WS.COM with a routine to clear screen on initialization.

While we're at it we might as well include some code to set the arrow keys to those used by WordStar when it starts up, and then to reset them to the CP/M keys on exiting from WordStar (you may then use SETUP to set the arrow keys to CP/M on booting), and also, for those who want it, come on already logged onto Drive B.

For WordStar Version 3.30

```
address  change to  comment
287-     C3 C4 02   ;INISUB: jump to initialization routine
                    ;  or ''CB'' if you don't want to come
                    ;  up logged onto B:
28A-     C3 E9 02   ;UNISUB: jump to exit routine
2C4-     0E 0E      ;mvi c,e      / omit if you don't
         1E 01      ;mvi e,1      ( want to come up
         CD 05 00   ;call bdos    \ logged onto B:
2CB-                ;MORPAT: user patch area*
         01 04 05   ;lxi b,0504   ^E & ^D in BC
         11 08 18   ;lxi d,1808   for deleting left arrow
                    ;             use 7F instead of 08
(02D1-)             ;set keys routine
         2A 01 00   ;lhld 1       get BIOS base address
         2E 7F      ;mvi l,7f     add offset for pointer
         7E         ;mov a,m   }          \to arrow adr.
         23         ;inx h     } get address of arrows
         66         ;mov h,m   }   keys and move to HL
         6F         ;mov l,a   }
         70         ;mov m,b      set arrow keys - up
         23 71      ;inx h! mov m,c    ''          right
         23 72      ;inx h! mov m,d    ''          down
         23 73      ;inx h! mov m,e    ''          back
         0E 02      ;mvi c,2      console out
         1E 1A      ;mvi e,1a     clear screen code in E
         CD 05 00   ;call bdos
         C9         ;ret          return
(02E9-)             ;exit routine
         01 0C 0B   ;lxi b,0B0C   ^K & ^L in BC
         11 08 0A   ;lxi d,0A08   ^J & ^H in DE
         C3 D1 02   ;jmp 02D1     jump to set keys routine
```

For WordStar Version 2.26

```
2A4-     C3 D9 02   ;INISUB: jump to initialization routine
                    ;  or ''E0'' if you don't want to come
                    ;  up logged onto B:
2A7-     C3 FE 02   ;UNISUB: jump to exit routine
2D9-     0E 0E 1E 01 ;  / omit if you don't want to
         CD 05 00   ;  \ come up logged onto B:
2E0-     01 04 05 11 ;MORPAT: user patch area*
         08 18      ;for left delete use 7F instead of 08
(2E6-)   2A 01 00 2E 7F 7E 23 66      ;set keys routine
         6F 70 23 71 23 72 23 73
         0E 02 1E 1A CD 05 00 C9
(2FE-)   01 0C 0B 11 08 0A C3 E6 02   ;exit routine
```

Note: if you already have another patch here, this routine can be put anywhere between — in WordStar 3.33 — 02BB and 034A inclusive (since it takes 39 bytes and the latest it could start is 0324), and between (I think) 02DB and 035C in version 2.26. But if you do put it somewhere else, be sure to change the jumps in INISUB and UNISUB and the one at the very end, remembering that in machine code the two bytes of the address are reversed.

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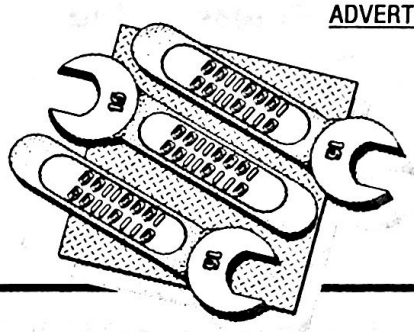

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By David E. Cortesi

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Finessing the Dread 'DISK FULL'

by Stephen Carrig

Even though our Osborne 1 was delivered with double density drives, I found myself too often eyeball-to-video with the dread "BDOS ERROR". With but a perfunctory "DISK FULL", CP/M would drop me to one of the CCP system prompts: "A› or B›". And my file? Lost in the ethers of RAM limbo! It's not one of WordStar's more endearing features that there's no application-resident way to determine how much space remains on a disk.

The marathon nature to our data entry sessions — preparing voluminous communications files for automatic uploading to CompuServe, or 10s of Ks of customer identifications and orders for books and supplies — made "DISK FULL" especially painful.

We avoided the problem by trying to remember to check for remaining disk space before we entered WordStar. Failure to do this often meant hours of wasted time, the tedious work of reentering long, long lists of 13-digit identification numbers.

With too much data in RAM (and the temporary .$$$ files) any variant of the WordStar save command (**^KX**, **^KS** or **^KD**) will overwhelm existing disk space. (^ means control.)

After this happened one too many times I prepared two special function keys. These SFKs call the disk-based utility XDIR.COM. A simple **^7** or **^9** (from opening menu) now drops me out of the menu and into the **R** command of WordStar. The **^7** does an extended directory check of Drive A and the **^9** provides the same service on Drive B.

Because XDIR is disk-based, and not resident within CP/M, we can access it while remaining within WordStar proper. The gateway for this operation is WordStar's **R** command from the Edit No File menu. Here are the SFK entries (made in SETUP.COM):

```
Drive A---) ''RX(SP)A:(RET)(ESC)(ESC)''
            |  |  |  |     |    |
Drive B---) ''RX(SP)B:(RET)(ESC)(ESC)''
            -- -- -- ---  ---  ---
            |  |  |  |     |    |
            |  |  |  |     |----|— Exit from SETUP.COM
            |  |  |  |-------------- Return required by ''R''
            |  |  |----------------- X.COM run on A: or B:
            |  |-------------------- Required by CP/M
            |----------------------- ''R'' calls X.COM
```

(N.B. to save SFK space, renamed XDIR.COM as X.COM)

With SETUP.COM loaded and running, enter the keystrokes exactly as you see them portrayed. After you've backed out of SETUP, save the new system tracks to the WordStar disk. Push the **reset** button on the face of the Osborne. Then starting from scratch with WordStar in Drive A and your data disk in Drive B, reboot the system.

If you don't zap RAM (reset) and load the operating system tracks afresh, the Osborne will continue on its merry way using the SFKs (if any) that existed before you entered the changes through SETUP, i.e., your new SFKs won't work.

From here, I'll assume that you've properly programmed the two keys, that you've reset your system, and that you've loaded WordStar into Drive A and your data files disk into Drive B. Given all of this, checking on disk space is a simple matter of punching in **^7** or **^9** whenever you're at the Edit No File menu.

There will be a clacking of drives and gnashing of bytes as WordStar shifts control to the **R Run a program** command. Temporarily, the Osborne drops into CP/M command mode. XDIR is found on Drive A and run against the directory of the drive you selected in the programming of the SFKs.

And there you have it — a listing of the files along with a count of disk space used. Just hit any key to return to WordStar. You'll be brought back to the Edit No File menu and logged onto that same drive from which you started the exercise.

Incidentally, if the directory check tells you it would be best to try another disk (not enough space or you've logged the wrong data disk, for example) just hit **^7** or **^9** a second time. That second application of the SFKs automatically drops you to the CP/M command prompt A› or B›. This happens because the letter "X" in "X.COM" calls the "X- EXIT to system" command of the Edit No File menu.

Here is how that happens. After running the extended directory check, WordStar's **R** command is looking for the entry of ANY character. That character will cancel the directory check, clear the screen, and return control to the Edit No File menu.

Look again at what you've keyed in for the new SFKs. The first character fed to WordStar — by executing another **^7** OR **^9** — is **R**. That entry returns control to WordStar's Edit No File menu. It could have been ANY character; there is no significance to it having been an "R".

The next character in the SFKs is "X". Here, since we are back to the Edit No File menu, it makes a very big difference which character is now sent to WordStar. This is because the Edit No File menu accepts commands from the keyboard, or from SFKs. And "X" is the command for "EXIT to system".

Pretty neat, whot?

With periodic **^KS**'s, and frequent use of the new SFKs, we've managed to finesse our way past most of the annoyances to "DISK FULL".

[THE SYSTEM: Osborne 1; blue case; SS/DD (factory installed); 80-Column (factory board, user installed); 1.44 ROM; CP/M 2.2; WordStar 3.3.

THE AUTHOR: Stephen Carrig is an economist. He and four of his colleagues are partners in the mail order firm: Computer Books @ Discount, Courthouse Station 747, Arlington, VA 22216]

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Free Fix for a Video Failure

by Steve Cunningham
Philadelphia Region
Osborne Group (PhROG)

Equipment: OS-1 Blue Case; 80 Column Upgrade — OCC version.

After three years of flawless loyalty and service my trusty O-1 exhibited a hardware problem! As the shock wore off, a phone call and five minutes work repaired everything at no cost. Quick, to the ***FOGHORN***!

The Problem

Everything quits and the screen is covered with a grid of little boxes . . . and the boot message is displayed though overwritten by the grid. No response to keyboard. Cycle the power, sometimes it goes away to reappear a few hours later.

The Solution

A call to Mr. Ed Swazey at Computers for the Professional Ltd., Kulpsville, PA. He suggests the 80-col. upgrade connectors.

The method is:

* Remove front panel, invert machine, remove the bottom.
* Remove four screws holding the board to the plastic posts.
* Turn board over.

The OCC 80-col. board is the large L-shaped board mounted on top of the mother board. The connection is via three multi-pin connectors which are actually pins into chip sockets rather than proper connectors.

The contacts are dirty!

To clean: pull straight up on the board — slowly with wiggles. In and out once or twice, and that's it. The rubbing and movement has wiped the pins clean.

* Reassemble, test it and congratulate yourself.

You can operate the machine in the open configuration for test since no connections have been opened in the disassembly process. A severe case might need tuner cleaner on the pins, etc., but mine did not.

Good luck. The value of the O-1 is tremendous and a free repair really makes me feel good all over.

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TURBO Pascal Within WordStar

by Don M. McCarty

I have been very pleased with Borland's TURBO Pascal, but was disappointed to find out that programs I created on my Osborne would not run with the **R** command of WordStar. I wrote a printer setup program and couldn't use it with WordStar, my main printing program. I just couldn't believe that Borland would generate code that wouldn't run under WordStar.

Then I got a tip from John Barron. He had been writing programs on his Osborne for a Kaypro. They wouldn't run on the Kaypro until he discovered the section in Borland's manual which talks about the `End Address` on CP/M-80 versions of the compiler. If you are using TURBO Pascal on a CP/M machine, I recommend reading this section again.

TURBO Pascal defaults the `End Address` to about 800 bytes below your BDOS (top of the TPA) so that it can stick a reloader in that will take control after you execute the .COM file from within TURBO. The reloader is part of TURBO and not part of the .COM file. (I say about 800 bytes because that is what the TURBO manual says and because it may vary with different versions.)

Like TURBO Pascal, WordStar will **R**un programs from its opening menu. It too sticks a reloader just below the BDOS so that it can regain control after some other program is run. The problem is that the WordStar loader is about 1,536 (600h) bytes. (Again this may vary slightly with different versions of WordStar.)

Thus, when TURBO Pascal files, compiled with the default (or larger) `End Address`, are **R**un under WordStar, they overlay data (constants from the program) onto the WordStar reloader.

Therefore, to produce TURBO Pascal files that will run under WordStar you must set the `End Address` to at least 1,536 (600h) bytes below the maximum possible setting.

I will use my system as an example. When I select **O** from the main TURBO menu and then **C** from the Option menu I get a display that says:

```
Start address: 1FC9 (min 1FC9)
End   address: D040 (max D306)
```

If I use the **E** command to change the `End Address` to CD06 (600h less than D306) or less the compiled program will run with WordStar's **R** command. The D040 default is only 710 (2C6h) bytes less than D306.

Thus, TURBO's resident reloader is smaller than WordStar's resident reloader. If I intend to run a compiled program with TURBO's **R** (or **X**) command it must not use memory above D040h. If I intend to run a compiled program with WordStar's **R** command it must not use memory above CD06h.

So the bug I thought I discovered turns out not to be a bug at all but rather a feature that allows generated .COM files to use as much memory as possible. It's just not possible to use all that memory from inside of WordStar.

[Just a note — this also applies to all TURBO Pascal programs. In order to make your TURBO program run on most CP/M computers, make sure you set the End Address low enough. An End Address of C000 will give you approximately 48K of user memory, and should let your program run on almost any CP/M computer. Jack]

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LNW 80 (SSDD)		•	•	•	•	•	•	•	•
Lobo MAX-80 (SSDD)		•	•	•	•	•	•	•	•
Lobo MAX-80 512 (SSDD)		•	•	•		•	•	•	•
Micral 9050 CP/M 80 (DSDD)		•	•				•		•
Morrow MD11 (DSDD)		•	•						•
Morrow MD2 (SSDD)		•	•	•	•	•	•	•	•
Morrow MD3 (DSDD)		•	•						•
MacSym 150 (SSDD)								•	
Monroe OC9620 (SSDD)								•	
NCR Decision Mate 5 (DSDD)		•	•				•		•
NEC PC 8001A (DSDD)		•	•				•		•
NEC PC 8001A (SSDD)		•	•	•	•	•	•	•	•
Olympia ETX II (SSDD)		•	•	•		•	•	•	•
Olympia EX100 (DSDD)		•	•				•		•
Osborne 1 (SSDD)		•	•	•	•	•	•	•	•
Osborne 1 (SSSD)				•	•	•	•		
Osborne 4 Vixen (DSDD)		•	•		•		•		•
Osborne Executive (SSDD)		•	•	•	•	•	•	•	•
Osborne Osmosis (SSDD)		•	•	•		•	•	•	•
Otrona (DSDD)		•	•				•		•
Philips 8000 (SSDD)								•	
PMC Micromate (DSDD)		•	•				•		•
Reynolds & Reynolds (SSDD)		•	•	•		•	•	•	•
Sanyo CP/M (DSDD)		•	•				•		•
Superbrain (DSDD)		•	•				•		•
Superbrain Jr (SSDD)		•	•	•		•	•	•	•
Systel II (SSDD)		•	•	•	•	•	•	•	•
Systel III (DSDD)		•	•				•		•
S-100 40 TRK (SSDD)				•		•	•	•	•
TI Professional CP/M 86 (DSDD)		•	•				•		•
TI Professional CP/M 86 (SSDD)		•	•	•	•	•	•	•	•
TRS-80 Model III FEC CP/M (SSDD)		•	•	•		•	•	•	•
TRS-80 Model III FEC T805 (SSDD)		•	•	•		•	•	•	•
TRS-80 Model III Hurr Labs (SSDD)		•	•	•		•	•	•	•
TRS-80 Model III Mem Merch (SSDD)		•	•	•	•	•	•	•	•
TRS-80 Model I Omikron CP/M (SSSD)				•	•	•	•		
TRS-80 Model IV CP/M Plus (SSDD)		•	•	•	•	•	•	•	•
TRS-80 Model IV Montezuma Micro (SSDD)		•	•	•		•	•	•	•
Teletek 40 track (SSDD)		•	•	•		•	•	•	•
Teletek 80 track (SSDD)								•	
Toshiba T100 (DSDD)		•	•				•		•
Televideo TurboDOS (DSDD)		•	•				•		•
Televideo 807 CP/M							•		•
Wang Mass CP/M (DSDD)		•	•				•		•
Xerox 820 II (SSDD)		•	•	•	•	•	•	•	•
Xerox 820 II (SSSD)				•	•	•	•		
Zorba 40 track (DSDD) •		•	•				•		•

• *Requires access to "foreign" computer*

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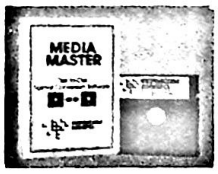

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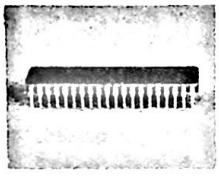

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INTERSECTING CONCEPTS

APPLICATIONS TOOLBOX

PR2300 Ink-jet Printer Workarounds

by Stephen Carrig

Many months ago DAK Industries of Canoga Park, CA first offered a close-out special on the Olivetti PR2300 ink-jet printer. As DAK describes themselves, they are specialists in direct marketing of manufacturers' discontinued product lines and special promotions.

The most recent advertisement for the PR2300 is carried in the Winter 86 catalog. It is well-written and entertaining. Unfortunately, it also is inaccurate. Even with all of the user support both DAK and Olivetti are able to muster, the PR2300 does not properly support the Osborne 1. I have no knowledge of how compatible it may be with other systems.

Recent issues of the ***FOGHORN*** have carried users' comments on their problems with the Olivetti ink-jet. Among them are the PR2300's annoying habit of repeating letters and its trick of stopping dead in its tracks while printing a file.

Both problems seem to be caused by the inability of the PR2300 and WordStar to maintain a "handshake" between them on files that require two or more disk accesses by the word processor. Specifically, the Centronics interface between the Osborne 1 and the PR2300 functions in one direction (from O-1 to PR), one time, i.e., the printer accepts a full buffer (1K), one time. After that it's blind luck.

Sometimes the printer and computer will have their duet sufficiently in tune to transfer the next 1K block of text and sometimes they won't. There is no consistency.

When the interface breaks down, the user is left with the printer stopped somewhere in the file and the Osborne's keyboard "locked up". No combination of terminal keystrokes will correct this.

Early on, PR2300 users discovered that if they lift the printer's cover, close it, and then push the **On Line/Local** button, the Osborne's drives will whirr and the printer will start up again. But if the next 1K block does not properly transfer they likely will have to repeat the process for succeeding 1K blocks of text. In a 30K file this gets very boring, very fast.

A second way to avoid the delays was found using CP/M's PIP utility. Here, users drop out of WordStar and run the command:

PIP lst:=yourfile

from the CP/M command prompt. This blasts the "yourfile" text over to the printer.

That takes care of the delays. The PR2300 will, without locking up the computer and without any of the lid-lifting nonsense, jet along at maximum print speed. And for some reason beyond the understanding of Olivetti's own software engineers, the number of doubled characters drops dramatically.

The down side to this technique is that all of the text in the PIPed file is printed out flush to the left edge of the paper and without any space allowances for page breaks. Granted, the PR2300 literature claims that a software interface can provide a left margin. And the options available in CP/M's PIP utility permit line skipping for page breaks. But why bother?

We use WordStar's "P PRINT a file" from the Opening Menu to avoid the delays and frozen keyboard. By printing first to a disk file from within WordStar and THEN to paper via CP/M's PIP utility, we have the formatting we want along with that side benefit of fewer doubled characters.

Here is the workaround:

1) From the WordStar Opening Menu use "D Open a document file" to create a text file named TEST1. Do not use any formatting dot commands in this test file. Save it to disk with the standard **^KD** (control KD) command.

2) Again from the Opening Menu use "P PRINT a file" to call up the "not editing" print prompts. Enter **TEST1** in response to the `Name of file to print?`. The next prompt is the toggle `Disk file output (Y/N)?`. Respond **y** and enter the file name **PRINT** at the very next prompt, the request for the name of the output file. Now hit <**ESC**> *[with WS ver. 2.26, you will have to continue answering the questions with carriage returns. David]* and sit back while WordStar writes the file TEST1 into the new file PRINT.

   You now are ready to print your test file. PRINT is a duplicate of the TEST1 file with one very important set of additions. In "printing" TEST1 to disk, your WordStar has physically formatted the file in accordance with its printing default values. This is automatic. No special instructions from the user are required.

   You can see this for yourself. Open the PRINT file with "D Open a document file" and take a look at it on the screen. Be sure to close the file with a **^KQ**: exit without saving.

3) From the Opening Menu select "R Run a program" and wait a second for the `COMMAND?` prompt. At this prompt, WordStar provides you direct access to the transient CP/M utilities on the default disk's operating system tracks. Enter **PIP lst:=print** and the PRINT file will, from the operating system level, spool out to the PR2300. It will print without pause, and the printed document will be formatted to the default specifications of your WordStar installation.

This workaround is successful because it avoids the crossed signals of the WordStar-to-PR2300-to-WordStar interface. The print to file duplication of TEST1 to PRINT is done completely within WordStar. The **PIP lst:=print** is made from the operating system directly to the printer. In neither of these routines does the PR2300 have to rely on a successful mating with WordStar.

And this finesse is not limited to the default settings of

WordStar. We use them because our printouts are standardized and we've installed our version 3.3 for 50 lines of text (8-line margins top and bottom), 79-character line lengths with a 12 character left margin, and page numbering disabled.

The format of the finished, PIPed document can be anything the user wants. S/He need only embed dot commands in the original file. The new formatting instructions will be embedded in PRINT in place of the default settings. Incidentally, this embedding process may include headers, footers, sequential page-numbering, and so on. They all work for us.

Yes, there are drawbacks to the use of this workaround. Perhaps the most significant is the disk space taken up by a duplicate file. PRINT will almost always be larger than TEST1. This is because the embedded formatting commands are no longer held in memory by WordStar. They are physically present in the PRINT file itself.

The longer the TEST1 file, the wider its margins, and the more elaborate the embedded formatting commands, the larger PRINT will become. We have created PRINT documents fully 40 percent larger than the TEST1 document from which they were generated.

Another annoyance is the time it takes to duplicate the TEST1 file. But when we consider the alternative — of having to sit by the printer and time and again lift the lid, drop the lid, and press the **On Line/Local** button — it's a minor inconvenience.

The increase in file size and the time required for writing TEST1 to the disk file PRINT are troublesome but apparent to the user. Not so obvious is one potential problem found in formatting.

Any file printed out to a disk file will have as its left margin the sum of the printing iterations' embedded margins. To explain — if the user's version of WordStar has an 8-column margin installed as its default, the first print to a disk file will provide an embedded 8-column margin. If that same file again is written to disk an additional 8-column margin will be embedded.

The same problem occurs when the user first prints from the default format and then prints again to disk the same document file, this time with embedded format commands controlling the second print to disk. The left margin offset will be the sum of the installed (within WordStar) default margin plus the additional margin the user puts into the file with the formatting commands.

Format problems most often occur when we attempt to MailMerge files for a continuous print. If each document is to have a unique format, we embed those codes in their respective files. But the MailMerge command file is started with margin top, margin bottom, and page offset commands of zero. It is too easy to forget to do this.

These zero values must be explicitly stated in the command file. Without them, WordStar/MailMerge assume we want the default values of our installed version of WordStar in addition to those unique format commands already in the individual files. By forcing zero values (i.e. **.mt0**; **.mb0**; **.po0**) in the MailMerge command file our individual files are printed as designed, in accordance with the unique format commands they each contain.

To prevent doubled margins:

1. We never twice print to disk the same document file;
2. We always start all MailMerge command files with the values for top and bottom margins and the page offset set to zero.

The Olivetti PR2300 ink-jet could not by the stretch of anyone's imagination be considered a "correspondence quality" printer. Its output resembles the second carbon from a dot matrix impact machine. But it does seem to be durable. We use it for printing shipping labels, making quick screen dumps from PRESTO!, and the SUPER QUIET generation of draft copies of documents and 18cpi spreadsheets. For those purposes, it is adequate.

And with our workaround it's actually possible to get away from the machine long enough to draw a cup of coffee. Without any further assistance the PR2300 crackles and hums its way through to page after page of properly-formatted copy.

[System: Osborne 1 (blue bezel), SS/DD, 80-column display, 1.44 ROM, CP/M 2.2, WordStar 3.3.

Author: Stephen Carrig is an economist. He and three of his colleagues are partners in a mail-order house for computer texts and software: Computer Books @ Discount, Courthouse Station 747, Arlington, VA 22216. MCI Mail 182-9868; ITT Telex 4997162; CompuServe 74025,1017.]

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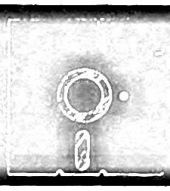

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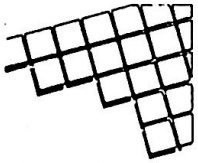

Then develop your ideas using a familiar outline format. Change the structure as easily as you change your mind. Move an idea and all attached text moves with it.

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dBASE II

Calendar Dating Systems

by Reilly Burke

Unfortunately for those of us who live outside the United States, U.S.-type calendar dating systems come to our countries embedded in software and hardware. My three-year-old O-1 business system is plagued with M-D-Y, D-M-Y, and Y-M-D calendar dating formats running at the same time. Needless to say, clerical errors abound, and I expend a lot of energy trying to rectify daily calendar-date disasters.

Without any doubt, the Y-M-D format is the easiest for business hackers. It's simple to subtract, for instance, and it's equally simple to index invoices into calendar order, or to sort perishable inventory without struggling with complicated calendar algorithms. Using a "." between pairs of numbers instead of a "/" will speed up data entry on most Osbornes (except for Vixens). (Enter **xx.yy.zz** instead of **xx/yy/zz**).

The following .CMD program will accept dates in your preferred format, trap errors in the process, and SET DATE TO your selection. You can set your dBASE II DATE() in whatever format you desire, simply by rearranging line **#19** (don't type in the line numbers!).

The inspiration for this routine came from N. J. Potts' article in the September, 1983 ***Portable Companion***. I hacked it down in size because it's not normally necessary to offer employees a choice of date formats (in the real world, "it's do it my way, or else!"). When using this program, the user is offered NO choices after booting the application program. Errors are simply trapped and thrown back at the operator.

If you are using a formatted screen for data input, you'll no longer have to enter dates by hand in your selected format, nor will you have to drop out of your dBASE application to type **SET DATE TO <date>**. Make sure that each record has a CHARACTER field (eight spaces wide) named **DATE**, and include the following line in your input program.

REPLACE DATE WITH DATE()

DATE is a field in your record named **DATE**, and **DATE()** is the dBASE system date loaded by YY.CMD. What you get is a CHARACTER field in the format xx/yy/zz (eight characters). The dBASE system date is ALWAYS a character variable that is immune to the commands that erase other variables (e.g. CLEAR, RELEASE, etc). It is only set to 00/00/00 when you QUIT dBASE, or you type **SET DATE TO 00/00/00.**

If you want to mess around with your dates in arithmetic fashion, (i.e. adding or subtracting dates), you'll have to MODIFY the DATE field to a numeric-type and then use the following command:

REPLACE DATE WITH
VAL($(DATE(),1,2)+$(DATE(),4,2)+(DATE()7,2))

This will give a date field in your record that is a NUMBER instead of a CHARACTER type. The date will be in the form **xxyyzz** with no slash marks separating pairs of numbers.

I regret that I am unable to offer any assistance with rearranging calendar dates in U.S.-published accounting software. My only advice is to shop around for accounting software locally, and insist that anything you purchase meets your business needs.

Don't hesitate to harass software suppliers over these "small" matters. In fact, be aggressive and insist on software that meets your needs. European accounting-ware will be published with a D-M-Y format and Metric accounting-ware will have a Y-M-D format. Many publishers use different formats, so there's no need to be pushed into a corner by unpleasant software merchants!

The following routine allows you to make your dBASE programs consistent with your accounting programs.

```
* YY.CMD
* by Reilly Burke
* PO Box 23276
* Vancouver, BC
* CANADA V7B 1V7
* A dBASE .CMD program to set calendar date in your format and
* autoboot to another .CMD program
* (c)
SET TALK OFF
ERASE
CLEAR
DO WHILE T
ACCEPT 'ENTER DATE AS YY.MM.DD' TO DATEIN
STORE $(DATEIN,3,1) TO Q
STORE $(DATEIN,6,1) TO R
STORE VAL($(DATEIN,1,2)) TO NYEAR
STORE VAL($(DATEIN,4,2)) TO NMONTH
STORE VAL($(DATEIN,7,2)) TO NDAY
IF NYEAR>=80 .AND. NYEAR<=99 .AND. NMONTH>=1 .AND. NMONTH<=12 ;
.AND. NDAY>=1 .AND. NDAY<=31 .AND. Q='.' .AND. R='.'
STORE STR(NYEAR,2) TO YEAR
STORE STR(NMONTH,2) TO MONTH
STORE STR(NDAY,2) TO DAY
SET DATE TO &YEAR/&MONTH/&DAY
DO <your .CMD program>
ELSE
? ''DATE APPEARS TO BE UNREASONABLE - TRY AGAIN''
? ''      SET DATE IN <YY.MM.DD> FORMAT''
? ''  USE <.> ONLY BETWEEN PAIRS OF DIGITS''
?
? ''***** PRESS <RETURN> TO CONTINUE *****''
WAIT
ENDDO WHILE T
```

FOG MEMBER LIBRARY NEWS

Library Notes

by Jack Brown

Listed below are the February FOG Disk Library releases. As with all disks released under the new format, the disks are each approximately 170K is size. When ordering the disks from the FOG office, be sure to specify what format you want. If your format will not hold 170K per disk, you must order two floppies for each disk you want. Thus if your computer uses 90K floppies and you want to order one of the disks from the reorganized library, you would calculate the cost at $8.00 per disk if ordering less than five disks (that's less than ten floppies) or $6.00 per disk if ordering five or more disks. If a format is not specified, we will ship Osborne 1 double density.

Most of the programs and files released this month are brand new programs or new versions of old favorites. In a few cases, I have incorporated programs from the old library so that related programs are grouped together.

The new typeset Library Directory will be released later this quarter. In the interim, a file listing the contents of all releases has been sent (with these disks) to the FOG sysops.

In going through the archives of programs sent to the former librarians, I have found that a few files are damaged. Where possible, I have contacted the author but some cannot be fully identified. If your submission has not appeared on one of the new disks, please drop me a note (either by mail or to FOG RCP/M #1 or #6). Please include the filename, a brief description of the program, and when and how (by disk, upload to a FOG board, etc.) you submitted it.

If you find problems with any of these programs, please let me know as soon as possible.

-FOG/CPM.021: Osborne 1 specific programs

```
//CPM021 .DOC:
/DEC/85  .   :
CURSOR   .AQM: Squeezed source file for CURSOR.COM
CURSOR   .COM: Sets cursor type with Nuevo 80 column board
CURSOR   .DOC: Discussion of cursor options in CURSOR.COM
DFDZCPR  .AQM: Squeezed source for DFDZCPR - needs RMAC to
               assemble
DFDZCPR  .DOC: Instructions for assembling DFDZCPR
DFDZCPR  .SPR: CCP replacement for Drive C
FK       .COM: Function key programmer
FK       .DOC: Instructions for using and modifying FK.COM
JOURNEY  .COM: Maze type graphics game for 52 col. O-1
JOURNEY  .DOC: Complete instructions for JOURNEY (a D&D type
               game)
JOURNEY  .INS: Part of the JOURNEY program
JOURNEY  .SSS: JOURNEY high score
OSBDDD   .COM: Dysan Digital Diagnostic program (drive speed
               test)
PATCHER  .COM: Modifies your CP/M for screen dump, blink
               cursor, etc.
PATCHER  .DOC: Easy installation instructions for PATCHER
SET      .COM: Change arrow keys, screen width, printer
               params,
SET      .DOG:  and print fonts on Okidata and Epson printers
```

-FOG/CPM.022: Z80 disassembler written in TURBO Pascal

```
//CPM022 .DOC:
/DEC/85  .   :
README   .Z0 : Notes on Ver. 2.0 changes and features
Z80DIS   .000: Z80DIS overlay file
Z80DIS   .001:   "     "     "
Z80DIS   .COM: Z80 disassembler with 'intelligence'
Z80DIS   .EQ : Squeezed example file from Ver 1.0
Z80DIS20 .DQC: Squeezed .DOC file for Z80 features
ZDINSTAL .COM: Terminal installation program
ZDINSTAL .DTA: Data file for terminal installation
ZDINSTAL .MSG: Messages file for terminal installation
```

-FOG/CPM.023: Performance Evaluation and Review Technique (PERT)

```
//CPM023 .DOC:  and Critical Path programs
/JAN/86  .   :
CPA      .BAS: Critical Path analysis in MBASIC
CPA      .DOC: From BYTE magazine, 7/82
DEMO     .PRT: Data for the PERT.INT demo program
PERT     .DOC: PERT80 documentation and PERT discussion
PERT     .INT: CBASIC PERT program (menu driven)
PERT128  .BAS: 200 column printer PERT program in MBASIC
PERT80   .BAS: 80 column printer PERT version in MBASIC
PERT80   .DOC: Quick information on PERT80 and PERT128
PERTHELP .INT: Part of PERT.INT program
PERTHLP0 .INT: Part of PERT.INT program
PERTOVR2 .INT: Part of PERT.INT program
PERTOVR5 .INT: Part of PERT.INT program
PERTOVR6 .INT: Part of PERT.INT program
PERTOVR7 .INT: Part of PERT.INT program
PERTOVR8 .INT: Part of PERT.INT program
PERTSAMP .COM: PERT80 sample program
PERTSORT .INT: Part of PERT.INT program
PERTTEST .   : PERT80 test file
PERTWS   .DOC: Documentation for PERT.INT
PINSTALL .INT: Installation program for PERT.INT
```

-FOG/CPM.024: This disk contains all the files needed to use

```
//CPM024 .DOC:  the Osborne Executive computer as an addition
/JAN/86  .   :  to an Atari computer through the ATARIBUS.
AFC      .COM:
AFC      .CQ : This allows the Atari to access the disk drives
AFC      .CQL:  and LST: device of the Executive as though
AFC      .DQC:  they were Atari accessories.
AFC      .SYM:
AMON     .COM: Complete source for the software is provided in
```

```
AMON      .CQ :   BDS C, so modifications for other CP/M comput-
AMON      .CQL:   ers can be made.
AMON      .DQC:
AMON      .SYM:  All files on this disk have been squeezed.
AS        .COM:   Use NSWEEP or USQ to unsqueeze them.
AS        .CQ :
AS        .CQL:  NOTE: Some special hardware has to be built
AS        .DQC:   in order to make this all work!
AS        .SYM:
AS-EXEC   .COM:
ATARI     .H  :
ATARI     .LQB:
ATARIBUS  .DQC:
ATARIFN   .CQL:
ATARIFN   .CQM:
BASICDOS  .AQR:  Sample squeezed Atari 'disk'
DOSTRUCT  .HQ :
HARDWARE  .DQC:
PATCHING  .DQC:
README    .1ST:  Documentation for Executive implementation
```

-FOG/CPM.025: Disassemblers and debugging tools

```
//CPM025 .DOC:
/JAN/86  .   :
DDTF      .AQM:  Squeezed source for DDTF
DDTF      .COM:  A string-find function addition for DDT
DDTF      .DOC:  Allows finding any string from within DDT
H80       .MNE:  HD64180 mnemonics for REVAS
I80       .MNE:  Intel 8080 mnemonics for REVAS
I85       .MNE:  Intel 8085 mnemonics for REVAS
MAC       .MNE:  MAC/RMAC mnemonics for REVAS
MSA15     .COM:  An 8080 disassembler
MSA15     .DOC:  Terse instructions for MSA
REVAS     .COM:  A disassembler with your choice of mnemonics
REVAS     .INF:  Invoking & setting up REVAS
TDL       .MNE:  TDL/CDL mnemonics for REVAS
Z80       .MNE:  Zilog mnemonics for REVAS
Z8E       .COM:  Full screen Z80 debugging monitor
Z8E       .DQC:  True symbolic debugging
Z8E       .SYM:  Symbol table for patching Z8E
ZDT       .COM:  A Z80 mnemonic version of DDT
ZDT       .DOC:  Documents additional commands of ZDT
```

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OSBORNE 1

FK.COM: A Great Time Saver

by Jim Holmes

I had several reasons for selecting an Osborne 1 as a first computer for our office. Among the features offered, programmable function keys seemed like a "nice, but not vital" attribute. I soon changed my mind, however.

Saving time is what the micro's all about, at least to me. The function keys, as well as the key-conversion utility, SmartKey II+, are an important aid in doing this.

I use many different function key sets, configured for specific jobs, to eliminate typo's and speed entry of frequently-used commands. Until now I had to switch disks and reboot every time I wanted to change them.

Though I still saved time, I longed for a way of saving several sets of definitions for function keys on my master disk(s), the way I can for redefined SmartKeys. I've tried a couple of commercial products, but they don't seem compatible with my SmartKeys, which I need for lengthy boilerplate insertions. At last, an answer has arrived.

FK.COM, a public domain utility by Joel Guerra, (on FOG OS1.001) allows eight sets of function keys for the O-1 to be defined, and it stores them in 4K!

While this is in addition to those keys configured through SETUP, I think most users will want to (as Guerra suggests) reserve one set identical to the SETUP version, so as to take advantage of FK.COM's ability to do a "change of application" together with the change of keys (see FK.DOC for a detailed explanation).

Briefly, this utility allows you to:

1. Examine/modify current definitions.
2. Load any of eight new sets of definitions without rebooting.
3. Examine/modify those eight sets as well.
4. Execute a CP/M command after a new set of keys is loaded.
5. Redefine the O-1's arrow keys individually to anything you wish (space permitting).

FK.DOC provides a detailed, "walk-through" of all these features. I won't detail them here, other than to say that each set conforms to limitations of your CP/M system for the total number of character spaces. I get 90 with my 80-column (DD) upgrade, including arrow keys. While this won't allow much in the way of stored text (I still use SmartKey), it's a great help when I'm entering lengthy command sequences.

One final note: While FK.COM is not offered for sale, I urge every user who finds this program valuable to send a contribution to the author:

M. Joel Guerra
211 Manchester, #155
Euless, TX 76039

and to do the same whenever pleased with any public domain program.

We are fortunate to have this source, and I can think of no better way to keep it flowing than to, "prime the pump" occasionally.

• • • • • • •

Hidden Keys

by Bob Thomson

Next time you are at your Osborne keyboard take a few minutes to find out what various keystroke combinations will do. If you haven't already done this you may be surprised to discover that there are several "hidden" keys that are available to you if you wish to use them.

For example, what happens when you hold down the control key while striking other keys? We know that from the A> prompt:

- **^C** Causes a Warm Boot.
- **^P** Toggles your printer on and off.
- **^H** Causes the cursor to backspace.
- **^J** Causes the cursor to move down one line i.e. Line Feed (LF).
- **^M** Is a Carriage Return and Line Feed.
- **^Z** Will cause the screen to be cleared and the cursor to go to line two of the screen.

You can clear the screen and "home" the cursor with **^Z<ESC>=↵**.

You can also "home" the screen with **^[** when the screen is scrolled to the left due to the cursor being far to the right.

But what if we type some of the symbol keys with the ^ key held down? Try it. You will be surprised. You should be able to find the following: ' { | } ~ (that's ^-quote key (a reverse apostrophe), left and right curly brackets, and a tilde) (^ means control).

CAUTION: The early Osborne manual told programmers that **<ESC>#** called from within a program will lock the keyboard and **<ESC>"** will unlock it but warns that it is not advisable to enter **<ESC>#** from the keyboard. It will lock up everything and you will have to press **RESET**.

*[Reprinted from the May 1985 **TOGGLE**, newsletter of the Tacoma/Seattle Area Osborne User Groups.]*

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The multifunction board (MFB) component of the Executive ESU's is available as a separate item. As such it comes without disk drives and without the double-sided drive and 8" drive capabilities. The 8 Mhz CPU and 512K of high speed RAM, of which 388K can be RAM disk, are standard. The Clock, EEPROM and Math Processor are optional. It is upgradable later to a full ESU.

The Executive versions of Nuevo's Enhanced Storage Upgrades include two new double-sided disk drives, your choice of 48 tpi (2X2) or 96 tpi (4X4), a multi-function memory board upgrade, an 8 Mhz Z-80 CPU and new disk controller and monitor ROM IC's. The 2X2 provides 386K per drive and the 4X4 has 782K per drive. Installation is straightforward and simple. There is *no* soldering.

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Heath Magnolia DD	NEC8001A DD	TRS80 I SD
Heath Z90 DD	Nelma Persona DD	TRS80 III DD
IBM CP/M86 DD	OKI if 800 DD	TRS80 IV DD
Kaypro II DD	Osborne One SD&DD	Xerox 820 SD
Lobo Max80 DD	Osborne Exec DD	Xerox 820 DD

DS FORMATS

Altos 580 DS/DD (96 tpi)	NEC8801A
Ampro Little Board (96tpi)	Nuevo 0-1 2X2
Cromemco CP/M80	Nuevo 0-1 4X4 (96tpi)
Epson QX-10	Osborne Vixen
Heath Z100	Sanyo
HP-125 (CPM86)	Televideo 803

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YES! I want to "Upgrade" my Osborne with the item(s) I've checked below!

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☐ Double Density Upgrade @ $150.00
☐ Double Density Upgrade with cable for Standard Drives @ $165.00
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☐ 0-1 4 x 4 Upgrade (1564K) @ $695.00 or ☐ $545.00 if Nuevo DDU owner
☐ My 0-1 has a ☐ Brown Case ☐ Blue Case ☐ and is ☐ SD ☐ DD
The Rev. # is _____ (Note: The Rev. # is usually displayed at the top of the screen when the computer is first turned on)
☐ Exec 2 x 2 Upgrade (772K) @ $595.00 ☐ Exec 4 x 4 Upgrade (1564K) @ $695.00
☐ Exec MFB Upgrade @ $425.00
☐ Exec Options (please list) _____

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☐ Please charge to my ☐ VISA ☐ MasterCard
_____ Expiration Date _____
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Cursor and Display Screen Window Facilities for an O-1

by Don M. McCarty

I have written four TURBO Pascal functions and one procedure which can be used (with **GoToXY**) to provide cursor control and display screen window capabilities for an Osborne 1.

The two functions **WhereX** and **WhereY** are meant to be compatible with the TURBO Pascal IBM PC-DOS functions of the same name.

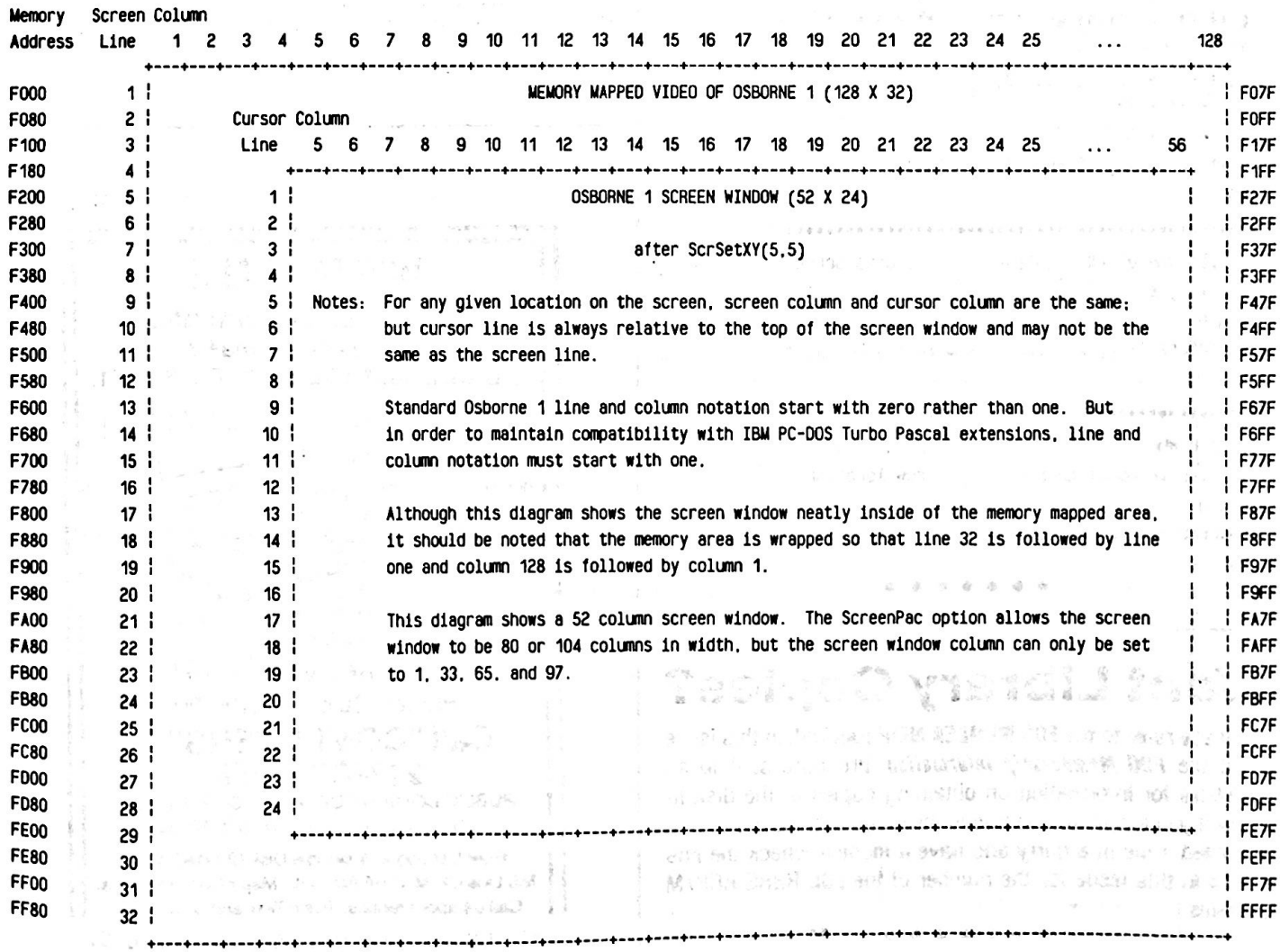
It should be noted, however, that the cursor location (1,1) may not be the upper left corner of an Osborne 1 display screen. This is because of the Osborne's ability to do horizontal as well as vertical scrolling. Cursor location (1,1) will always be on the top line of the display screen but may be scrolled off to the left (and therefore not visible) on that line.

I have provided a Map of the memory mapped video area that shows the relationship between the memory mapped video and the screen window display. As seen in this diagram, the column numbers are absolute and therefore the same for video memory area and for cursor location (as returned by **WhereX**), regardless of screen window location. However, cursor line numbers for the Osborne 1 are relative to the first line of the display screen window.

Because of the unique display screen window abilities of the Osborne 1, I have also included screen window functions (**WhereScrX** and **WhereScrY**) which return the screen column and line numbers of the current screen location.

Also included is a procedure, **ScrSetXY**, which can be used to set the display window location just as **GoToXY** sets the cursor location. The effect of the procedure is to move the upper left corner of the displayed screen window to the column and line specified.

On a 52 column Osborne 1 the screen display window may be set to any column. On an Osborne 1 with ScreenPac installed, the display window may actually be set only on columns 1, 33, 65, and 97. Trying to set the display at other columns will set it to one of the four possible columns. Experiment if you like. However, the **WhereScrX** will return the column where the screen was set and not necessarily one of the four possible columns.



```
sborne 1 Screen Functions and Procedures
By Don M. McCarty - 10/31/85

These routines are meant to provide Osborne 1
WhereX and WhereY routines similar to the TURBO
Pascal IBM PC-DOS routines of the same name.

*************************************************
Function WhereX : Integer;          Returns Cursor
  Var X:Byte absolute $EF5A;        column location:
  Begin                             1-128
  WhereX := (X AND $7F)+1;          ****************
  End;
*************************************************
Function WhereY : Integer;          Returns Cursor
  Var Y:Integer absolute $EF5A;     row location:
  Begin                             1-32
  WhereY:=((Y AND $0FFF) shr 7)+1;  ****************
  End;
*************************************************
Procedure ScrSetXY(X,Y:Integer);    Sets Screen at
  Var X1,Y1 : Byte;                 chosen X,Y
  Begin                             location:1-128,
  If X<1 then X1 := 0               1-32
  Else X1 := ((X-1) mod 128);       ****************
  If Y<1 then Y1 := 0
  Else Y1 := ((Y-1) mod 32);
  X1 := X1 + 32;
  Y1 := Y1 + 32;
  Write(Chr($1B)+'S'+Chr(Y1)+Chr(X1));
  End;
*************************************************
Function WhereScrX : Integer;       Returns Screen
  Var X:Byte absolute $EF61;        column location
  Begin                             ****************
  WhereScrX := (((X - $00EA) And $00FF) Shr 1) + 1;
  End;
*************************************************
Function WhereScrY : Integer;       Returns Screen
  Var Y:Byte absolute $EF62;        row location
  Begin                             ****************
  WhereScrY := (Y AND $1F) + 1;
  End;
```

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Want Library Copies?

Please refer to the **FOG MEMBER MERCHANDISE** in this issue or to the ***FOG Membership Information*** brochure sent to all members for information on obtaining copies of the disk library if you are unable to attend meetings of a local group. If you need a file in a hurry and have a modem, check the **FOG FONES** in this issue for the number of the **FOG** RBBS-RCP/M systems.

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Trigonometric Functions and Some Other Number Handling Functions

by Bill Hollis

The Ossie is good for handling numbers, writing letters, and many other functions, but it does not have built-in functions such as: ARCCOS "Inverse Cosine", ARCSIN "Inverse Sine", ARCSEC "Inverse Secant", ARCCSC "Inverse Cosecant", ARCCOT "Inverse Cotangent" and the "Hyperbolic" and "Inverse Hyperbolic" functions.

Since I have had need for these Trig functions and our manuals were lacking in methods of implementing them, it was necessary to research, hunt and peck, and experiment to approach a correct method; one that would of course produce the correct answer. This caused much consternation, and "why me's?" but finally I have what is hoped to be the right answer.

The final functions are displayed here with the hope that it will help someone else.

In the following formulas the addition of 1.5708 is the same as adding 180/PI to produce degrees rather than radians, as the formulas will do without the addition of the term 1.5708.

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Secant:	SEC(X)	1/COS(X)
Cosecant:	CSC(X)	1/SIN(X)
Cotangent:	COT(X)	1/TAN(X)

Inverse

Sine:	ARCSIN(X)	ATN(X/(SQR(-X)*X + 1) + 1.5708
Cosine:	ARCCOS(X)	-ATN(X/(SQR(X*(-X) + 1)) + 1.5708
Secant:	ARCSEC(X)	ATN(SQR(X*((-X) - 1)) + SGN(SGN(X) - 1)*1.5708
Cosecant:	ARCCSC(X)	ATN(X/(SQR(X*(-X) - 1))) + (SGN(X) - 1)*1.5708
Cotangent:	ARCCOT(X)	-ATN(X) + 1.5708

Hyperbolic

Sine:	SINH(X)	(EXP(X) - EXP(-X))/2
Cosine:	COSH(X)	(EXP(X) + EXP(-X))/2
Secant:	SECH(X)	2/(EXP(X) + EXP(-X))
Cosecant:	CSCH(X)	2/(ECP(X) - EXP(-X))
Tangent:	TANH(X)	EXP(-X)/(EXP(X) + EXP(-X))*2 + 1
Cotangent:	COTH(X)	EXP(-X)/(EXP(X) - EXP(-X))*2 + 1

Inverse Hyperbolic

Sine:	ARCSINH(X)	LOG(X+SQR(X*X-1))
Cosine:	ARCCOSH(X)	LOG(X+SQR(X*X-1))
Secant:	ARCSECH(X)	LOG((SQR((-X)*X+1)+1)/X)
Cosecant:	ARCCSCH(X)	LOG((SGN(X)*SQR(X*X+1)+1)/X)
Tangent:	ARCTANH(X)	LOG(((1+X)/(1-X))/2)
Cotangent:	ARCCOTH(X)	LOG(((X+1)/X-1))/2)

Some other useful formatting functions are:

General Formatting Functions

To truncate numbers to remove unwanted decimal places.

```
DEF FNP#(N%,P#)     =   INT(N%*P#)/N%     [nonrounding]
DEF FNP#(N%,P#+.5)  =   INT(N%*P#+.5)/N%  [rounding]
```

Extended Formatting Functions

Function Call	# Places	Exponent	# Returned
DEF FNP0# =INT(1*P+.5)/1	0	10^0	1
DEF FNP1# =INT(10*P+.5)/10	1	10^1	1.2
DEF FNP2# =INT(100*P+.5)/100	2	10^2	1.23
DEF FNP3# =INT(1000*P+.5)/100	3	10^3	1.234
DEF FNP4# =INT(10000*P+.5)/1000	4	10^4	1.2345

and so on to:

DEF FNP8# =INT(1000000000)+.5)/100000000	8	10^8	1.123456789

Formatting for Dollars [2 places]

```
DEF FNP#(P#)=INT(100*P#)/100      [nonrounding]
DEF FNP$(P#)=INT(100*P#+.5)/100   [rounding]
```

That's all for now. Hope someone finds this useful. I know that when I didn't have the information and was unable to find someone who did know, I thought I was in trouble. It took a lot of looking and a lot of tries to get the formulas to work, for what would work on other computers, from other better-written manuals than we received, would not work on the Ossie.

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Correcting the Shaky Monitor on the Executive

by David Beach

I have just finished putting my computer back together after correcting the "shaky monitor" problem. No this solution is not described in any earlier submissions. Any person doing these repairs should be aware that there are high voltages in the area where the problem occurs. Disconnect the computer from the power source before working on the power supply.

The problem occurred in the power supply of the Executive. It is easily repaired if you have the tools. Transistor Q3 was faulty and had to be replaced. Q3 is within the shielded part of the supply and beside Q4. (Q3 Q4 are in the regulator part of the circuit. The scope test showed marked ripple on the DC line.)

The Osborne part number for Q3 is (TRS-PNP 2SB561). A substitution for this transistor is (AAMPS 4355) which is what I have put in and the monitor is as steady as a rock!

This transistor also affects the entire computer, so if you have tried the resistors in the fan or tried resoldering the transistor as described in the May 1984 ***FOGHORN*** and nothing has worked, then this may be your trouble.

Good luck in stopping those shaking monitors!

• • • • • • •

Attention Commodore 128 Owners!

ALL the software in the FOG Library (well MOST of it anyway) will run on the C128 under CP/M+. Most CP/M software is happiest with an 80 column screen, and many business programs require 2 disk drives and a printer.

Where programs are specific to a certain computer, we have made notes to that effect on the library listings. Those programs without specific notation are generic CP/M and should run on most CP/M computers with little or no trouble. Some FOG Library programs require you to purchase a commercial program before you can use it. Examples of this are programs that require dBASE II, MBASIC, CBASIC, or WordStar/MailMerge (which are all proprietary programs).

All the programs on the new FOG library disks are available from one of the FOG RCP/M systems (see the **FOG FONES** section), from your local AMO group, or directly from the FOG office on disk (see **FOG MEMBER MERCHANDISE** section). CP/M library disks are normally distributed on SSDD Osborne format disks unless you specify otherwise.

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Executive Notes

by Jim Holmes

I thought the following article, from the January, 1985 ***ROCC Pile*** (the Raleigh Osborne Computer Club) by Mike Rulison might be of interest to our Exec owners.

1. The PATCH utility (***Reference Guide***, p. 212) was not included with the system disks (has anyone ever seen it?). This might be the original "moot point", if Digital Research and Osborne have no patches to provide.
2. RENAME is resident and transient — the .COM file version will prompt you for the file names (could be useful in SUBMIT files), while the resident function works as before.
3. ERASE also comes in resident and transient flavors, with the transient allowing the CONFIRM option (***Reference Guide***, p. 187).
4. The USER function (***Reference Guide***, p. 271) is only resident, i.e., it's built into CP/M.
5. You can boot from drive B by hitting the TAB key after pushing Reset. (If there's a boot error, the screen says you should hit Return to retry. If you just tried to boot B, it will retry booting from B.) This makes the bottom drive the "A" drive, and the top one the "B" drive.
6. The CONSOLE setting option of the DEVICE command does not seem to be fully implemented. Error messages are always screened in 80 columns, not in the user-specified console width. Also, the console page length seems to have effect only within the execution of a single command, so that a sequence of commands (as in multi-line .SUB files) can scroll information off-screen too quickly to see.
7. There is no PAUSE or WAIT command to CP/M, which could be useful for long .SUB files. (Anyone have a .COM file for this?) *[Yes! MKWAIT20.COM; FOG/CPM.005. Ed]*
8. Apparently, all of the original Executive disks came with both the serial and parallel printer ports enabled, which can cause `Device not ready - unassign this device?` messages during printing. This can be cured by using SETUP to define the unused port as NO DEVICE instead of CP/M LIST DEVICE and by updating your Executive with Osborne's new BIOS.
9. WordStar still leaves us with the wrong arrow key interpretation when exiting WS to CP/M on the same disk. Looks like a job for ManyKey or some other utility. Suggestions?
10. WordStar 3.3 has it's "label-patcher" facility, (like WS 2.26). Access it (by typing +) when you hit the main menu in INSTALL (the one that shows terminal menu, printer menu, etc.). This lets you patch specific labels (if you know their names) without going through INSTALL's (clear but time-consuming) nested menus. Useful for testing super/subscript patches, etc., but SID (CP/M 3's debugger, like DDT) would be faster.
11. Speaking of CHARGEN, it's easy to edit a new character into the "space" character; you can compare it with the original, then replace it.

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CORRECTION

Re: WordStar and the Movies

In Dick Ezzard's article *WordStar and the Movies* which appeared in the December 1985 ***FOGHORN*** (p. 14) there are several typos which reverse the **^QC** and **^QR** commands.

Under the section **The Top and the Bottom** in subparagraph 2, the correct command is **^QR**. In subparagraph 3, the correct command is **^QC**.

Under the section **One Target Could Be Enough**, **^QC** is the correct command for moving the cursor to the bottom of the file.

• • • • • • •

dBASE II: Finding Where One String Occurs Within Another

(December 1985, Page 71)

In the command file that follows the sentence "Now, create the following wonderfully brief command file":

At the second command line after the `DO WHILE .NOT. EOF`, the closing quotation marks for the second pairs of quotes was accidentally omitted. The term `&ADD` should be completely enclosed in quotation marks, thus:

```
STORE @('','','&ADD') TO C
```

In the annotated command file that follows "Voila! Here's what we've done:"

The fourth line should have a **&** symbol, not a **@** symbol. The line should read as it does above:

```
STORE @('','',"&ADD") TO C
```

Similarly, at the end of the article the instructions should read just as they do in the first, non-annotated command file.

```
SKIP
IF EOF
CANCEL
ENDIF
ENDDO
```

That's it.

• • • • • • •

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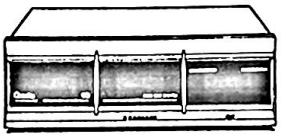

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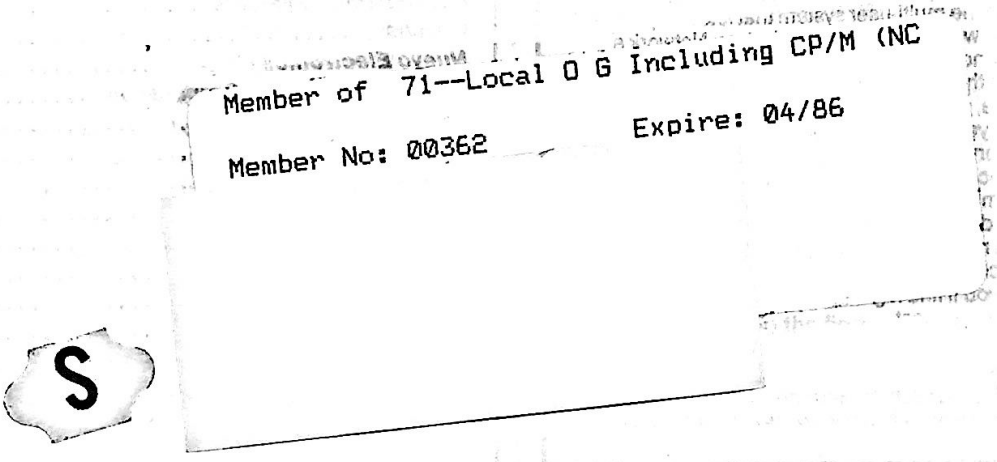

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